

STIC Search Report

STIC Database Tracking Number: 198349

TO: Eisa Elhilo

Location: REM 9C19

Art Unit : 1751 August 11, 2006

Case Serial Number: 10/611968

From: Ross Shipe Location: EIC 1700

REMSEN 4B31

Phone: 571/272-6018 Ross.Shipe@uspto.gov

Search Notes

Examiner Elhilo:

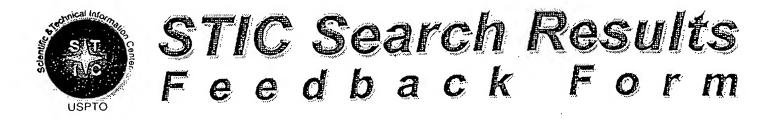
Please review the attached search results.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thanks you for using EIC 1700 search services!

Ross Shipe (ASRC)
Technical Information Specialist





EIC17000

Questions about the scope or the results of the search? Contact the EIC searcher or contact:

Kathleen Fuller, EIC 1700 Team Leader 571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form
 I am an examiner in Workgroup: Example: 1713 Relevant prior art found, search results used as follows:
102 rejection
☐ 103 rejection
Cited as being of interest.
Helped examiner better understand the invention.
Helped examiner better understand the state of the art in their technology.
Types of relevant prior art found:
Foreign Patent(s)
Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
> Relevant prior art not found:
Results verified the lack of relevant prior art (helped determine patentability).
Results were not useful in determining patentability or understanding the invention.
Comments:

ij.

=> d his full

```
(FILE 'HOME' ENTERED AT 13:17:38 ON 11 AUG 2006)
     FILE 'REGISTRY' ENTERED AT 13:19:31 ON 11 AUG 2006
                 STRUCTURE
L6
L9
                  SCR 2108
L10
                  SCR 2106
                 SCR 1664
L15
              21 SEA SSS SAM L6 AND (L9 OR L10) AND L15
L16
L17
            1672 SEA SSS FUL L6 AND (L9 OR L10) AND L15
                 SAV L17 ELH968/A
     FILE 'HCAPLUS' ENTERED AT 14:48:59 ON 11 AUG 2006
L18
            1613 SEA ABB=ON PLU=ON L17
               1 SEA ABB=ON PLU=ON L18 (L) ALDEHYDE? (2A) ?CURSOR? 2 SEA ABB=ON PLU=ON L18 AND ALDEHYDE? (2A) ?CURSOR?
L19
L20
                 D SCAN TI
             129 SEA ABB=ON PLU=ON L18 AND ALDEHYDE?
L21
               1 SEA ABB=ON PLU=ON L21 AND ESSENTIAL OIL?/SC,SX
L22
                 D SCAN TI
              17 SEA ABB=ON PLU=ON L18 (L) (HAIR? OR KERATIN? OR FIBER?
L23
                  FIBRE?) (2A) (DYE? OR COLOR? OR COLOUR?)
               2 SEA ABB=ON PLU=ON L18 (L) (HAIR? OR KERATIN? OR FIBER?
L24
                 FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?) AND ALDEHYDE?
              18 SEA ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER?
L25
               FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?)

1 SEA ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER?
FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?) AND ENZYME?
L26
               2 SEA ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER?
L27
                 FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?) AND ALDEHYDE?
              19 SEA ABB=ON PLU=ON L19 OR L20 OR L22 OR L23 OR L24 OR
L28
                 L25 OR L26 OR L27
              17 SEA ABB=ON PLU=ON L28 AND (1840-2003)/PRY, AY, PY
1,29
```

=> file reg
FILE 'REGISTRY' ENTERED AT 15:03:46 ON 11 AUG 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 American Chemical Society (ACS)

=> d 129 que stat L6 STR

 $\begin{array}{ccc}
 \text{Hy} = N \sim NH2 \\
 1 & 2 & 3
 \end{array}$

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1 N AT 1

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 3

	?CURSOR?
L20	2 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND ALDEHYDE? (2A) ?CURSOR?
L21	129 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND ALDEHYDE?
L22	1 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 AND ESSENTIAL OIL?/SC,SX
L23	17 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 (L) (HAIR? OR KERATIN? OR FIBER? FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?)
L24	<pre>2 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 (L) (HAIR? OR KERATIN? OR FIBER? FIBRE?) (2A) (DYE? OR COLOR? OR COLOUR?) AND ALDEHYDE?</pre>
L25	<pre>18 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER? FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?)</pre>
L26	<pre>1 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER? FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?) AND ENZYME?</pre>
L27	<pre>2 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (HAIR? OR KERATIN? OR FIBER? FIBRE?)(2A) (DYE? OR COLOR? OR COLOUR?) AND ALDEHYDE?</pre>
L28	19 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 OR L20 OR L22 OR L23 OR L24 OR L25 OR L26 OR L27
L29	17 SEA FILE=HCAPLUS ABB=ON PLU=ON L28 AND (1840-2003)/PRY, AY,PY

=> file hcaplus FILE 'HCAPLUS' ENTERED AT 15:04:02 ON 11 AUG 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

=> d 129 1-17 ibib abs hitstr hitind

L29 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2005:588631 HCAPLUS

DOCUMENT NUMBER:

143:102802

TITLE:

Oxidative hair dyes

containing heterocyclical hydrazone derivatives

and aromatic enamines

INVENTOR(S):

Pasquier, Cecile; Buclin, Veronique; Kiener,

Caroline; Duc-Reichlin, Nadja; Braun,

Hans-Juergen

PATENT ASSIGNEE(S):

Wella Aktiengesellschaft, Germany

SOURCE:

PCT Int. Appl., 45 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND		DATE			APPLICATION NO.					DATE		
 WO 2005060928			À1 20050707			WO 2004-EP12942									
													200411 15		
										<					
W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	ΒZ,	CA,
	CH,	CN,	CO,	CR,	CU,	CZ,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,
	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KΡ,	KR,
					-	LT,		-						-	
	MZ,	NA,	NI,	NO,	ΝZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,
	SG,	SK,	SL,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	ŪĠ,	US,	UΖ,	VC,

```
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL,
             PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
             GQ, GW, ML, MR, NE, SN, TD, TG
                                              DE 2003-10358878
     DE 10358878
                           A1
                                  20050721
                                                                       200312
                                                                       16
                                                    <--
PRIORITY APPLN. INFO.:
                                              DE 2003-10358878
                                                                       200312
                                                                       16
OTHER SOURCE(S):
                          MARPAT 143:102802
     The invention concerns ready-to-use oxidative hair
     dyes composed of (i) heterocyclical hydrazone; (ii) arom.
     enamines or their acid addn. salts ; (iii) oxidizing agents.
     Optionally, direct dyes can be added. The invention also relates to
     a multicomponent kit and to a method for dying hair. Thus
     3,4-dimethyl-2(3H)-thiazolone-hydrazone hydrochloride synthesized
     starting from 4-methyl-3-thiosemicarbazide and chloroacetone.
     Component A of a hair dye compn. contained (g):
     decylpolyglucose 50% aq. soln. 4.00; EDTA disodium hydrate 0.20;
     ethanol 5.00; 3,4-dimethyl-2(3H)-thiazolone-hydrazone hydrochloride
     0.43; water to 100. Component B included (g) 1,2,3,3,-tetramethyl-
     3H-indolium-hydrogen sulfate 0.68; potassium persulfate.
     1128-67-2 3161-77-1 3316-70-9
IT
     4338-98-1 15315-48-7 20065-04-7
     20065-05-8 20065-06-9 20125-57-9
     21817-85-6 21817-86-7 21817-87-8
     21817-88-9 21817-89-0 21817-90-3
     21817-91-4 21817-92-5 21882-34-8
     27893-83-0 27893-84-1 27893-86-3
     27893-88-5 28029-80-3 28218-89-5
     28218-90-8 28218-93-1 28218-95-3
     28219-33-2 28219-40-1 33167-57-6
     33167-60-1 41339-01-9 51769-42-7
     60448-01-3 64071-37-0 64071-38-1
     64873-66-1 67644-68-2 67644-69-3
     68746-10-1 68746-11-2 71176-53-9
     76411-65-9 81402-80-4 94267-69-3
     104410-33-5 108129-92-6 109126-25-2
     109514-20-7 110226-87-4 110226-89-6
     110274-77-6 111427-05-5 111427-06-6
     114098-30-5 114252-53-8 117043-63-7
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     185454-77-7 200630-28-0 215249-36-8
     382627-87-4 383411-41-4 676475-28-8
     692250-45-6 718589-95-8 753027-71-3
     753027-72-4 753027-75-7 753027-76-8
     753027-77-9 753027-78-0 753027-79-1
     753027-81-5 753027-82-6 753027-83-7
     753027-84-8 753027-85-9 753027-86-0
     753027-87-1 753027-88-2 753027-89-3
     753027-90-6 753027-91-7 753027-92-8
     753027-94-0 856415-54-8
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs. and arom. enamines)
RN
     1128-67-2 HCAPLUS
     2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)
CN
```

VN, YU, ZA, ZM, ZW

RN 3161-77-1 HCAPLUS

CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3,4-dimethyl-, ethyl ester (9CI) (CA INDEX NAME)

RN 3316-70-9 HCAPLUS

CN 5-Thiazolecarboxylic acid, 3-ethyl-2-hydrazono-2,3-dihydro-4-methyl, ethyl ester (9CI) (CA INDEX NAME)

RN 4338-98-1 HCAPLUS

HCl

RN 15315-48-7 HCAPLUS

CN 3(2H)-Benzothiazoleacetic acid, 2-hydrazono-, ethyl ester (9CI) (CA INDEX NAME)

RN 20065-04-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-05-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-06-9 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-6-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 20125-57-9 HCAPLUS

CN 2(3H)-Benzothiazolone, 3,6-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-85-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ | \\ \text{H}_2 \text{N} - \text{N} \\ \text{S} \end{array}$$

RN 21817-86-7 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-87-8 HCAPLUS

RN 21817-88-9 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-ethoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-89-0 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-chlorophenyl)-3-methyl-, hydrazone (9CI) (CF INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \\ & \\ \text{H}_2\text{N} - \text{N} & \\ & \\ \text{S} & \\ \end{array}$$

RN 21817-90-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-91-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-92-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21882-34-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-83-0 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-84-1 HCAPLUS
CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-4-(4-methoxyphenyl)-3-methyl-,
hydrazone (9CI) (CA INDEX NAME)

RN 27893-86-3 HCAPLUS
CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-5-phenyl-, hydrazone
(9CI) (CA INDEX NAME)

RN 27893-88-5 HCAPLUS CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28029-80-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} . & \text{Me} \\ & | & . \\ \text{H}_2\text{N} - \text{N} & \text{Ph} \\ & & \\ \text{S} & & \\ \end{array}$$

RN 28218-89-5 HCAPLUS
CN 2(3H)-Benzothiazolone, 3-methyl-6-(phenylamino)-, hydrazone (9CI)
(CA INDEX NAME)

RN 28218-90-8 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)-(9CI) (CA INDEX NAME)

RN 28218-93-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-95-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 28219-33-2 HCAPLUS

2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME) CN

Me H₂N

28219-40-1 HCAPLUS RN

2(3H)-Benzothiazolone, 4,5,6,7-tetrahydro-3-methyl-, hydrazone (9CI) CN (CA INDEX NAME)

Me N-NH2

ŔŊ 33167-57-6 HCAPLUS

2(3H)-Thiazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME) CN

Ph

33167-60-1 HCAPLUS RN

CN 2(3H)-Thiazolone, 4-methyl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

Ph H_2N-N_{\gtrsim}

RN41339-01-9 HCAPLUS

2(3H)-Thiazolone, 3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

Ph = N- NH $_2$

ŔŊ 51769-42-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 7-chloro-3-methyl-, hydrazone (9CI) (CA

INDEX NAME)

RN 60448-01-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-butyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64071-37-0 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ \text{H}_2\text{N} - \text{N} \longrightarrow \text{Ph} \\ \text{S} \longrightarrow \text{Ph} \end{array}$$

RN 64071-38-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-methylpropyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64873-66-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 67644-68-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-butyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX

NAME)

RN 67644-69-3 HCAPLUS CN 2(3H)-Thiazolone, 3-(1-methylethyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-10-1 HCAPLUS.
CN 2(3H)-Thiazolone, 5-methyl-3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-11-2 HCAPLUS CN 2(3H)-Thiazolone, 3,4,5-triphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 71176-53-9 HCAPLUS
CN 6-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl(9CI) (CA INDEX NAME)

RN 76411-65-9 HCAPLUS

CN Naphtho[2,3-d]thiazol-2(3H)-one, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 81402-80-4 HCAPLUS

CN 5-Thiazolecarbonitrile, 4-amino-2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 94267-69-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 5,6-dimethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 104410-33-5 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 108129-92-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 109126-25-2 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-(phenylamino)-, hydrazone (9CI) (CA INDEX NAME)

RN 109514-20-7 HCAPLUS

RN 110226-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-acetyl-, 2-hydrazone (9CI) (CA INDEX NAME)

RN 110226-89-6 HCAPLUS

CN 3(2H)-Benzothiazolecarboxaldehyde, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 110274-77-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & & \\$$

RN 111427-05-5 HCAPLUS

RN 111427-06-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-ethyl-4,5-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 114098-30-5 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-5-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 114252-53-8 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 117043-63-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \\ & &$$

RN 130252-23-2 HCAPLUS

CN 6-Benzothiazolesulfonamide, 2-hydrazono-2,3-dihydro-N,N,3-trimethyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & & \\ & & \\ N & \\$$

RN 138485-20-8 HCAPLUS

CN 2(3H)-Thiazolone, 3,5-dimethyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-21-9 HCAPLUS

CN 2(3H)-Thiazolone, 5-ethyl-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-22-0 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & | \\ & | \\ \text{H}_2 \text{N} - \text{N} \\ & \text{S} \end{array} \qquad \text{Me}$$

RN 139262-46-7 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 157559-65-4 HCAPLUS

CN 2(3H)-Thiazolone, 5-methyl-3-(1-methylethyl)-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 185454-77-7 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 200630-28-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 2-hydrazono-6-methoxy-(9CI) (CA INDEX NAME)

RN 215249-36-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-hexyl-, hydrazone (9CI) (CA INDEX NAME)

$$S = N - NH_2$$
 $(CH_2)_5 - Me$

RN 382627-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-hydroxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 383411-41-4 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{HO_2C} & \operatorname{S} & \operatorname{N-NH_2} \\ & \operatorname{N} & \\ \operatorname{CH_2-CH_2-OH} \end{array}$$

RN 676475-28-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-methoxyphenyl)-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 N
 N
 S
OME

RN 692250-45-6 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 718589-95-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-71-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 Me
 N
 $Bu-t$

RN 753027-72-4 HCAPLUS

CN . 2(3H)-Thiazolone, 4-(3-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

753027-75-7 HCAPLUS RN

CN 4-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \text{O} \\ | & \text{II} \\ \text{H}_2 \text{N} - \text{N} & \text{C} - \text{OEt} \end{array}$$

RN 753027-76-8 HCAPLUS

2(3H)-Thiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) NAME)

$$\begin{array}{c} \operatorname{CH_2-CH_2-OH} \\ | \\ | \\ | \\ | \\ | \\ | \end{array}$$

RN753027-77-9 HCAPLUS

2(3H)-Thiazolone, 3-(2-hydroxyethyl)-4-methyl-, hydrazone (9CI) INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ \\ \text{H}_2\text{N}-\text{N} \\ \\ \\ \text{S} \end{array}$$

RN 753027-78-0 HCAPLUS CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX - NAME)

$$\begin{array}{c|c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{NH}_2\\ & \\ \text{H}_2\text{N-}\text{N} & \\ & \\ \text{S} & \\ \end{array}$$

RN 753027-79-1 HCAPLUS
CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-4-methyl-, hydrazone (9CI) (CA
INDEX NAME)

$$\begin{array}{c|c} \operatorname{CH_2-CH_2-NH_2} \\ \\ \operatorname{H_2N-N} \end{array} \begin{array}{c} \operatorname{N} \\ \\ \operatorname{S-} \end{array}$$

RN 753027-81-5 HCAPLUS CN 2(3H)-Thiazolone, 3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--CH} \longrightarrow \text{CH}_2 \\ \\ \text{H}_2\text{N}\text{--N} \longrightarrow \begin{array}{c} \text{N} \\ \\ \text{S} \longrightarrow \end{array}$$

RN 753027-82-6 HCAPLUS
CN 2(3H)-Thiazolone, 4-methyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2 - \text{CH} = \text{CH}_2 \\ \\ \text{H}_2 \text{N} - \text{N} \\ \\ \text{S} \end{array}$$

$$CH_2-CH = CH_2$$
 H_2N-N
 $Bu-t$

RN 753027-84-8 HCAPLUS CN 2(3H)-Thiazolone, 4-phenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ | \\ | \\ \text{H}_2\text{N} - \text{N} \longrightarrow \begin{array}{c} \text{N} \\ \text{S} \end{array} \end{array} \\ \text{Ph}$$

RN 753027-85-9 HCAPLUS

CN 5-Thiazolecarboxylic_acid, 2-hydrazono-2,3-dihydro-4-methyl-3[(phenylamino)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 753027-86-0 HCAPLUS

CN 2(3H)-Benzothiazolone, 7-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-87-1 HCAPLUS

CN 4-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 753027-88-2 HCAPLUS

CN 5-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN753027-89-3 HCAPLUS

7-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-CN (9CI) (CA INDEX NAME)

RN

753027-90-6 HCAPLUS
Acetic acid, [(2-hydrazono-2,3-dihydro-3-methyl-6-CN benzothiazolyl)oxy] - (9CI) (CA INDEX NAME)

RN 753027-91-7 HCAPLUS

2(3H)-Benzothiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) CN (CA INDEX NAME)

753027-92-8 HCAPLUS

CN2(3H)-Benzothiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-94-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 6-(hexadecyloxy)-2hydrazono- (9CI) (CA INDEX NAME)

Me-
$$(CH_2)_{15}$$
- O S N-NH₂ $(CH_2)_3$ -SO₃H

RN856415-54-8 HCAPLUS

CN2(3H)-Thiazolone, 4-[1,1'-biphenyl]-3-yl-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \text{H}_2\text{N}-\text{N} \\ \text{S} \end{array} \qquad \begin{array}{c} \text{Ne} \\ \text{Ph} \end{array}$$

IT 68746-04-3P 68746-06-5P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxidative hair dyes contg. heterocyclical hydrazone derivs. and arom. enamines)

RN 68746-04-3 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

RN 68746-06-5 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-trimethyl-, hydrazone, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 28

ST oxidative hair dye heterocyclical hydrazone

deriv arom enamine

IT Enamines

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (arom.; oxidative hair dyes contg.

heterocyclical hydrazone derivs. and arom. enamines)

IT Azo dyes

Dyes

(direct; oxidative hair dyes contg.

heterocyclical hydrazone derivs. and arom. enamines)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes

contg. heterocyclical hydrazone derivs. and arom. enamines)

```
IT
     Ouinones
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (dyes; oxidative hair dyes contg.
        heterocyclical hydrazone derivs. and arom. enamines)
IT
     Hydrazones
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (heterocyclical derivs.; oxidative hair dyes
        contg. heterocyclical hydrazone derivs. and arom. enamines)
TТ
        (nitro; oxidative hair dyes contg.
       heterocyclical hydrazone derivs. and arom. enamines).
IT
     Oxidizing agents
        (oxidative hair dyes contg. heterocyclical
       hydrazone derivs. and arom. enamines)
IT
     519-73-3D, Triphenylmethane, derivs.
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (dyes; oxidative hair dyes contg.
        heterocyclical hydrazone derivs. and arom. enamines)
IT
                2038-15-5, 2,3-Dimethylbenzothiazolium
                   2785-06-0, 2,3-Dimethylbenzothiazolium iodide
     methylsulfate
     2786-33-6, 2,3-Dimethylbenzothiazolium bromide 2786-34-7
     3119-93-5, 3-Ethyl-2-methylbenzothiazolium iodide 3161-77-1
     3316-70-9 4338-98-1 7722-84-1, Hydrogen
     peroxide, biological studies
                                   7727-21-1, Potassium persulfate
     14933-76-7 15315-48-7 20065-04-7
     20065-05-8 20065-06-9 20125-57-9
     21635-75-6
                 21654-46-6, 1,2,3,3-Tetramethyl-3H-indolium-
     tetrafluoroborate 21817-85-6 21817-86-7
     21817-87-8 21817-88-9 21817-89-0
     21817-90-3 21817-91-4 21817-92-5
     21882-34-8 27893-83-0 27893-84-1
     27893-86-3 27893-88-5 28029-80-3
     28218-89-5 28218-90-8 28218-93-1
     28218-95-3 28219-33-2 28219-40-1
     29814-03-7, 3-Ethyl-2-methylbenzothiazolium chloride
     33167-57-6 33167-60-1 41339-01-9
     51769-42-7
                 52299-76-0, 3-Ethyl-2-methylbenzothiazolium
    bromide 60448-01-3 62439-66-1 64071-37-0
     64071-38-1 64873-66-1 67644-68-2
     67644-69-3 68746-10-1 68746-11-2
     71176-53-9 76411-65-9 81402-80-4
                                101297-27-2 104410-33-5
     94267-69-3
                 100982-08-9
     108129-92-6 109126-25-2 109514-20-7
     110226-87-4 110226-89-6 110274-77-6
     111427-05-5 111427-06-6 114098-30-5
     114252-53-8 117043-63-7
                              124244-74-2
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     185454-77-7 200630-28-0 215249-36-8
     274696-30-9
                 372081-58-8 382627-87-4 383411-41-4
     676475-28-8 692250-45-6 718589-95-8
     753027-71-3 753027-72-4 753027-75-7
     753027-76-8 753027-77-9 753027-78-0
    753027-79-1 753027-81-5 753027-82-6
    753027-83-7 753027-84-8 753027-85-9
     753027-86-0 753027-87-1 753027-88-2
    753027-89-3 753027-90-6 753027-91-7
     753027-92-8 753027-94-0
                             856415-52-6
     856415-53-7 856415-54-8
                              856415-56-0
                                             856415-57-1
                  856415-59-3
                                 856415-60-6 856415-61-7
                                                             856415-62-8
    856415-58-2
     856415-63-9
                  856415-64-0
                                856415-65-1
                                               856415-66-2
    RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes contg. heterocyclical
       hydrazone derivs. and arom. enamines)
IT
     68746-04-3P 68746-06-5P
    RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic
```

```
preparation); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs, and arom, enamines)
     753011-47-1P
TT
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
     PREP (Preparation); RACT (Reactant or reagent)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs. and arom. enamines)
     78-95-5, Chloroacetone 4091-39-8, 3-Chloro-2-butanone 6610-29-3,
IT
     4-Methyl-3-thiosemicarbazide
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs. and arom. enamines)
REFERENCE COUNT:
                                THERE ARE 4 CITED REFERENCES AVAILABLE FOR
                                THIS RECORD. ALL CITATIONS AVAILABLE IN
                                THE RE FORMAT
L29 ANSWER 2 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                          2005:588629 HCAPLUS
DOCUMENT NUMBER:
                          143:102801
                         Oxidative hair dyes
TITLE:
                         containing heterocyclical hydrazone derivatives
                         Pasquier, Cecile; Buclin, Veronique; Kiener,
INVENTOR(S):
                          Caroline; Duc-Reichlin, Nadja; Braun,
                          Hans-Juergen
PATENT ASSIGNEE(S):
                         Wella Aktiengesellschaft, Germany
SOURCE:
                         PCT Int. Appl., 43 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          German
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                         KIND DATE
                                            APPLICATION NO.
                                                                     DATE
     WO 2005060927
                          A1
                                 20050707
                                             WO 2004-EP12941
                                                                      200411
                                                   <--
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
             GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
             DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL,
             PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     DE 10358883
                          A1
                               20050721
                                           DE 2003-10358883
                                                                     200312
                                                   <--
PRIORITY APPLN. INFO.:
                                             DE 2003-10358883
                                                                      200312
                                                                      16
OTHER SOURCE(S):
                        MARPAT 143:102801
    The invention concerns oxidative hair dyes
     composed of (i) heterocyclical hydrazone derivs.; (ii) CH-active .
     compds.; (iii) oxidizing agents. Optionally, direct dyes can be
     added. Thus 3,4-dimethyl-2(3H)-thiazolone-hydrazone hydrochloride
```

```
synthesized starting from 4-methyl-3-thiosemicarbazide and
     chloroacetone. Component A of a hair dye compn.
     contained (g): decylpolyglucose 50% aq. soln. 4.00; EDTA disodium
     hydrate 0.20; ethanol 5.00; 3,4-dimethyl-2(3H)-thiazolone-hydrazone
     hydrochloride 0.43; water to 100. Component B included (g):
     thiobarbituric acid 0.36; potassium persulfate 0.40.
IT
     1128-67-2 3316-70-9 15315-48-7
     20065-04-7 20065-05-8 20065-06-9
     20125-57-9 21817-85-6 21817-86-7
     21817-87-8 21817-88-9 21817-89-0
     21817-90-3 21817-91-4 21882-34-8
     27893-83-0 27893-84-1 27893-86-3
     27893-88-5 28029-80-3 28218-89-5
     28218-90-8 28218-93-1 28218-95-3
     28219-33-2 28219-40-1 33167-57-6
     33167-60-1 41339-01-9 51769-42-7
     60448-01-3 64071-37-0 64071-38-1
     64873-66-1 67644-68-2 67644-69-3
     68746-10-1 68746-11-2 71176-53-9
     76411-65-9 81402-80-4 94267-69-3
     104410-33-5 108129-92-6 109126-25-2
     109514-20-7 110226-87-4 110226-89-6
     110274-77-6 111427-05-5 111427-06-6
     114098-30-5 114252-53-8 117043-63-7
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     185454-77-7 200630-28-0 215249-36-8
     382627-87-4 383411-41-4 676475-28-8
     692250-45-6 718589-95-8 753027-71-3
     753027-72-4 753027-73-5 753027-75-7
     753027-76-8 753027-77-9 753027-78-0
     753027-79-1 753027-81-5 753027-82-6
     753027-83-7 753027-84-8 753027-85-9
     753027-86-0 753027-87-1 753027-88-2
     753027-89-3 753027-90-6 753027-91-7
     753027-92-8 753027-94-0
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs.)
RN
     1128-67-2 HCAPLUS
CN
     2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)
```

RN 3316-70-9 HCAPLUS
CN 5-Thiazolecarboxylic acid, 3-ethyl-2-hydrazono-2,3-dihydro-4-methyl, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et} & \\ \mid & \\ \text{H}_2\text{N}-\text{N} & \\ \text{S} & \\ \hline \\ \text{C}-\text{OEt} \\ \mid & \\ \text{O} \end{array}$$

15315-48-7 HCAPLUS RN

CN 3(2H)-Benzothiazoleacetic acid, 2-hydrazono-, ethyl ester (9CI) (CA INDEX NAME)

RN 20065-04-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN

20065-05-8 HCAPLUS

2(3H)-Benzothiazolone, 6-ethoxy-3-methyl-, hydrazone (9CI) (CA CN INDEX NAME)

20065-06-9 HCAPLUS

RN CN 2(3H)-Benzothiazolone, 3-methyl-6-nitro-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ \text{N} & \text{N-NH}_2 \\ \\ \text{O}_2\text{N} & \\ \end{array}$$

20125-57-9 HCAPLUS RN

2(3H)-Benzothiazolone, 3,6-dimethyl-, hydrazone (9CI) (CA INDEX CNNAME)

RN 21817-85-6 HCAPLUS CN 2(3H)-Thiazolone, 3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-86-7 HCAPLUS CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-87-8 HCAPLUS CN 2(3H)-Thiazolone, 4-(4-methoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-88-9 HCAPLUS CN 2(3H)-Thiazolone, 4-(4-ethoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-89-0 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-90-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-91-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21882-34-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-83-0 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-84-1 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-4-(4-methoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-86-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-88-5 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28029-80-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-89-5 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-6-(phenylamino)-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-90-8 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 28218-93-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hỳdrazone (9CI) (CA INDEX NAME)

RN 28218-95-3 HCAPLUS

RN 28219-33-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-40-1 HCAPLUS CN 2(3H)-Benzothiazolone, 4,5,6,7-tetrahydro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 33167-57-6 HCAPLUS CN 2(3H)-Thiazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 33167-60-1 HCAPLUS CN 2(3H)-Thiazolone, 4-methyl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 41339-01-9 HCAPLUS CN 2(3H)-Thiazolone, 3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 51769-42-7 HCAPLUS
CN 2(3H)-Benzothiazolone, 7-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 60448-01-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-butyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64071-37-0 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH$$
 CH_2
 H_2N-N
 N
 Ph

RN 64071-38-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-methylpropyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64873-66-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 67644-68-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-butyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

NAME)

RN 67644-69-3 HCAPLUS CN 2(3H)-Thiazolone, 3-(1-methylethyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-10-1 HCAPLUS

CN 2(3H)-Thiazolone, 5-methyl-3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-11-2 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-triphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 71176-53-9 HCAPLUS

CN 6-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 76411-65-9 HCAPLUS

CN Naphtho[2,3-d]thiazol-2(3H)-one, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 81402-80-4 HCAPLUS

CN 5-Thiazolecarbonitrile, 4-amino-2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ | & \\ \text{H}_2\text{N} - \text{N} \\ \text{S} & \\ \end{array}$$

RN 94267-69-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 5,6-dimethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 104410-33-5 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 108129-92-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ \text{N} \\ & \text{N} \\ & \\ \text{N} \\ & \\ \end{array}$$

RN 109126-25-2 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-(phenylamino)-, hydrazone (9CI) (CA INDEX NAME)

RN 109514-20-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-[(4-methylphenyl)methyl]-, hydrazone (9CI) (CA INDEX NAME)

RN 110226-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-acetyl-, 2-hydrazone (9CI) (CA INDEX NAME)

RN 110226-89-6 HCAPLUS

CN 3(2H)-Benzothiazolecarboxaldehyde, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 110274-77-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\stackrel{\text{Me}}{\underset{\text{N}}{\mid}} \stackrel{\text{N-}}{\underset{\text{NH}_2}{\mid}} \cdot$$

RN 111427-06-6 HCAPLUS CN 2(3H)-Thiazolone, 3-ethyl-4,5-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 N
 N
 Me

RN 114098-30-5 HCAPLUS CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-5-benzothiazolyl)-(9CI) (CA INDEX NAME)

RN 114252-53-8 HCAPLUS CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 117043-63-7 HCAPLUS
CN 2(3H)-Benzothiazolone, 5-ethoxy-3-methyl-, hydrazone (9CI) (CA
INDEX NAME)

v.

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 130252-23-2 HCAPLUS

CN 6-Benzothiazolesulfonamide, 2-hydrazono-2,3-dihydro-N,N,3-trimethyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ \text{Me}_2\text{N} - \\ & \\ \text{S} \\ & \\ \text{O} \end{array}$$

RN 138485-20-8 HCAPLUS

CN 2(3H)-Thiazolone, 3,5-dimethyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-21-9 HCAPLUS

CN 2(3H)-Thiazolone, 5-ethyl-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-22-0 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ \text{H}_2\text{N} - \text{N} \\ & \\ \text{S} \end{array} \qquad \begin{array}{c} \text{Me} \\ & \\ \text{Ph} \end{array}$$

RN 139262-46-7 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-propyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{n-Pr} & . \\ & \downarrow & \\ \text{H}_2\text{N-N} & \text{N} & \text{Ph} \\ & \text{S} & \\ & & \text{Ph} \end{array}$$

RN 157559-65-4 HCAPLUS

CN 2(3H)-Thiazolone, 5-methyl-3-(1-methylethyl)-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 185454-77-7 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 200630-28-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 2-hydrazono-6-methoxy-(9CI) (CA INDEX NAME)

RN 215249-36-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-hexyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} S & N-NH_2 \\ \hline & N \\ & (CH_2)_5-Me \end{array}$$

RN 382627-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-hydroxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 383411-41-4 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-(2hydroxyethyl)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{HO_2C} & \operatorname{S} & \operatorname{N-NH_2} \\ \\ & \operatorname{CH_2-CH_2-OH} \end{array}$$

RN 676475-28-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-methoxyphenyl)-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 692250-45-6 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 718589-95-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-71-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-72-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-73-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(3-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-75-7 HCAPLUS

$$\begin{array}{c|c} & \text{Me} & \text{O} \\ & & \text{II} \\ \text{H}_2\text{N} - \text{N} & \text{C} - \text{OE} \text{t} \\ & \text{S} \end{array}$$

RN 753027-76-8 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \operatorname{CH_2-CH_2-OH} \\ | \\ \operatorname{H_2N-N} \end{array}$$

RN 753027-77-9 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-78-0 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH_2-NH_2$$

RN 753027-79-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH_2-NH_2$$

RN 753027-81-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2 - CH = CH_2$$

RN 753027-82-6 HCAPLUS

CN 2(3H)-Thiazolone, 4-methyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2 - CH = CH_2$$

RN 753027-83-7 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{-}\text{CH} = \text{CH}_2\\ \\ \text{H}_2\text{N} - \text{N} \\ \\ \text{S} \end{array} \\ \begin{array}{c} \text{N} \\ \text{Bu-t.} \end{array}$$

RN 753027-84-8 HCAPLUS
CN 2(3H)-Thiazolone, 4-phenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ | \\ | \\ \text{H}_2\text{N} - \text{N} \longrightarrow \begin{array}{c} \text{N} \\ \text{S} \longrightarrow \end{array} \\ \end{array}$$

RN 753027-85-9 HCAPLUS
CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-4-methyl-3[(phenylamino)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 753027-86-0 HCAPLUS CN 2(3H)-Benzothiazolone, 7-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-87-1 HCAPLUS
CN 4-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl(9CI) (CA INDEX NAME)

RN 753027-88-2 HCAPLUS

CN 5-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 753027-89-3 HCAPLUS

CN 7-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 753027-90-6 HCAPLUS

CN Acetic acid, [(2-hydrazono-2,3-dihydro-3-methyl-6benzothiazolyl)oxy]- (9CI) (CA INDEX NAME)

RN 753027-91-7 HCAPLUS

2(3H)-Benzothiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-92-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN - 753027-94-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 6-(hexadecyloxy)-2-hydrazono- (9CI) (CA INDEX NAME)

Me-
$$(CH_2)_{15}$$
- O. S. N- NH₂

$$(CH_2)_3 - SO_3H$$

IT 68746-04-3P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxidative hair dyes contg. heterocyclical hydrazone derivs.)

RN 68746-04-3 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone, hydrochloride (9CI) (CA INDEX NAME)

•x HCl

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 28

ST oxidative hair dye heterocyclical hydrazone deriv

IT Azo dyes

Dyes

(direct; oxidative hair dyes contg. heterocyclical hydrazone derivs.)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes contg. heterocyclical hydrazone derivs.)

IT Quinones

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (dyes; oxidative hair dyes contg.

heterocyclical hydrazone derivs.)

IT Hydrazones

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (heterocyclical, derivs.; oxidative hair dyes

contg. heterocyclical hydrazone derivs.)

IT Dyes

(nitro; oxidative hair dyes contg. heterocyclical hydrazone derivs.)

IT Oxidizing agents

Ηα

(oxidative hair dyes contg. heterocyclical hydrazone derivs.)

IT 519-73-3D, Triphenyl methane, derivs.

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (dyes; oxidative hair dyes contg.

heterocyclical hydrazone derivs.)

IT 59-48-3 -67-52-7, Barbituric acid 105-34-0, Cyanoacetic acid methyl ester 105-56-6, Cyanoacetic acid ethyl ester 107-91-5, 2-Cyanoacetamide 109-77-3, Malonic acid dinitrile 141-84-4,

```
2-Thioxo-4-thiazolidinone
                                  372-09-8, Cyanoacetic acid 504-17-6,
     Thiobarbituric acid 608-08-2, 3-Indoxylacetate 939-83-3
                 3158-63-2, 1,3-Dimethylthiobarbituric acid 5718-83-2, 4-Oxo-2-thioxo-3-thiazolidinyl acetic
     3316-70-9
           7169-34-8, 3(2H) Benzofuranone 7722-84-1, Hydrogen
     peroxide, biological studies
                                    7727-21-1, Potassium persulfate
     15315-48-7 20065-04-7 20065-05-8
     20065-06-9 20125-57-9 21817-85-6
     21817-86-7 21817-87-8 21817-88-9
     21817-89-0 21817-90-3 21817-91-4
                  27074-03-9 27893-83-0
     21882-34-8
     27893-84-1 27893-86-3 27893-88-5
     28029-80-3
                  28141-13-1 28218-89-5
     28218-90-8 28218-93-1 28218-95-3
     28219-33-2 28219-40-1
                            32024-04-7
     33167-57-6 33167-60-1 41339-01-9
     51769-42-7
                  59997-51-2, Pivaloylacetonitrile
     60448-01-3 64071-37-0 64071-38-1
     64873-66-1 67644-68-2 67644-69-3
     68746-10-1 68746-11-2 71176-53-9
     76411-65-9 81402-80-4 94267-69-3
     104410-33-5 108129-92-6 109126-25-2
     109514-20-7 110226-87-4 110226-89-6
     110274-77-6 111427-05-5 111427-06-6
     114098-30-5 114252-53-8 117043-63-7
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     185454-77-7 200630-28-0 215249-36-8
     382627-87-4 383411-41-4 676475-28-8
     692250-45-6 718589-95-8 753027-71-3
     753027-72-4 753027-73-5 753027-75-7
     753027-76-8 753027-77-9 753027-78-0
     753027-79-1 753027-81-5 753027-82-6
     753027-83-7 753027-84-8 753027-85-9
     753027-86-0 753027-87-1 753027-88-2
     753027-89-3 753027-90-6 753027-91-7
     753027-92-8 753027-94-0
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs.)
     68746-04-3P
     RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs.)
     753011-47-1P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
     PREP (Preparation); RACT (Reactant or reagent)
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs.)
     78-95-5, Chloroacetone 6610-29-3, 4-Methyl-3 RL: RCT (Reactant); RACT (Reactant or reagent)
                               6610-29-3, 4-Methyl-3-thiosemicarbazide
        (oxidative hair dyes contg. heterocyclical
        hydrazone derivs.)
REFERENCE COUNT:
                                THERE ARE 4 CITED REFERENCES AVAILABLE FOR
                                THIS RECORD. ALL CITATIONS AVAILABLE IN
                                THE RE FORMAT
L29 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                          2004:755999 HCAPLUS
DOCUMENT NUMBER:
                          141:248369
                         Oxidative hair dyes with
TITLE:
                         bleaching agent containing hydrazone compounds
                         as developing agents
INVENTOR(S):
                         Pasguier, Cesile; Buclin, Veronique; Kiener,
```

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

IT

IT

TT

```
Caroline; Roulin, Anita; Braun, Hans-Juergen
```

PATENT ASSIGNEE(S): SOURCE:

Wella Ag, Germany Ger. Offen., 15 pp. CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT INFORMATION:																
	PATENT NO.				KIN		DATE		APPLICATION NO.						DATE	
	DE 10309523				A1	200	5	DE 2003-10309523						200303 05		
WC	2004078153			A1	1 20040916			WO 2004-EP961						200402 03		
	₩:	CH, GD, KZ,	CN, GE,	CO, GH, LK,	CR, GM, LR,	AT, AUCU, CO	Z, DK J, ID	, DM,	DZ, IN,	EC, IS,	EE, JP,	EG, KE,	ES, KG,	FI, KP,	GB, KR,	
		BW, BE, IT, CM,	GH, BG, LU,	GM, CH, MC, GN,	KE, CY, NL, GQ,	LS, MY CZ, DI PT, RG GW, MI	E, DK D, SE L, MR	EE, SI, NE,	ES, SK, SN,	FI, TR, TD,	FR, BF, TG	GB, BJ,	GR,	HU,	IE,	
EP	EP 1599179				A1		05113)	EP 2	<	7075:	12		2	00402 3	
	R:					DK, ES				ΙT,						
BR 2004008011			A	20060214			BR 2004-8011						200402 03			
US	2006	0106	16		A1	200	06011	•	US 2	< 005-!	5299′	78		2:	00503 4	
PRIORIT	Y APP	LN.	INFO	.:					DE 2		10309	9523	1	A. 2: 0:	00303 5	
						•			WO 2	< 004-1	EP96:	1	V	V	00402	

OTHER SOURCE(S): MARPAT 141:248369

The invention concerns hair prepns. for simultaneous bleaching and dyeing; the compns. include as developing agents thiazole, oxazole, imidazole, and benzoxazole derivs. of hydrazone; further ingredients are coupling dyes and a persulfate as oxidn./bleaching agent. Thus 3,4-dimethyl-2(3H)-thiazolone-1-(methylethylidene)-hydrazone was prepd. by reacting 21 g 4-methyl-3-thiosemicarbazide with 20.4 g chloroacetone in acetone at b.p. under reflux. The product was recrystd. from acetone; 23 orange powder was obtained. 3.5 G of the 3,4-dimethyl-2(3H)-thiazolone-1-(methylethylidene)-hydrazone was treated with 60 mL 6 M HCl at 50°C for 30 min; the reaction product was concd. and recrystd. from ethanol to yield 2 g pink 3,4-dimethyl-2(3H)-thiazolone-hydrazone hydrochloride. A hair dye compn. included (g): component A1:

03

```
Plantaren 2000 (50% soln.) 4.00; EDTA disodium salt 0.20; ethanol
     5.00; 3,4-dimethyl-2(3H)-thiazolone-hydrazone hydrochloride hydrate
     0.58; water to 100; component A2: 1,3-diaminobenzene 0.27; potassium
     persulfate 0.67.
     1128-67-2 3161-77-1 3316-70-9'
IT
     15315-48-7 20065-04-7 20065-05-8
     20065-06-9 20125-57-9 21817-85-6
     21817-86-7 21817-87-8 21817-88-9
     21817-89-0 21817-90-3 21817-91-4
     21817-92-5 21882-34-8 27893-83-0
     27893-84-1 27893-86-3 27893-88-5
     28029-80-3 28218-90-8 28218-93-1
     28219-07-0 28219-33-2 28219-40-1
     33167-60-1 41339-01-9 51769-42-7
     60448-01-3 64071-37-0 64071-38-1
     64873-66-1 67644-68-2 67644-69-3
     68746-10-1 68746-11-2 71176-53-9
     76411-65-9 81402-80-4 94267-69-3
     104410-33-5 108129-92-6 110226-87-4
     110226-89-6 110274-77-6 111427-05-5
     111427-06-6 114098-30-5 117043-63-7
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     178450-81-2 185454-77-7 200630-28-0
     215249-36-8 382627-87-4 383411-41-4
     676475-28-8 692250-45-6 718589-95-8
     753027-71-3 753027-72-4 753027-73-5
     753027-74-6 753027-75-7 753027-76-8
     753027-77-9 753027-78-0 753027-79-1
     753027-80-4 753027-81-5 753027-82-6
     753027-83-7 753027-84-8 753027-85-9
     753027-86-0 753027-87-1 753027-88-2
     753027-89-3 753027-90-6 753027-91-7
     753027-92-8 753027-93-9 753027-94-0
     753027-95-1 753027-96-2
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
RN
     1128-67-2 HCAPLUS
CN
     2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)
```

RN 3161-77-1 HCAPLUS
CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3,4-dimethyl-,
ethyl ester (9CI) (CA INDEX NAME)

RN 3316-70-9 HCAPLUS

CN 5-Thiazolecarboxylic acid, 3-ethyl-2-hydrazono-2,3-dihydro-4-methyl, ethyl ester (9CI) (CA INDEX NAME)

RN 15315-48-7 HCAPLUS

CN 3(2H)-Benzothiazoleacetic acid, 2-hydrazono-, ethyl ester (9CI) (CA INDEX NAME)

RN 20065-04-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-05-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-06-9 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-6-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 20125-57-9 HCAPLUS
CN 2(3H)-Benzothiazolone, 3,6-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-85-6 HCAPLUS CN 2(3H)-Thiazolone, 3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-86-7 HCAPLUS
CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-88-9 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-ethoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-89-0 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-90-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-91-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-92-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21882-34-8 HCAPLUS CN 2(3H)-Thiazolone, 4-[1,1

3 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-methyl-, hydrazone (9CI)
 (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ \\ \text{H}_2\text{N} - \text{N} \\ & \\ & \\ \text{S} \\ \end{array}$$

RN 27893-83-0 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-84-1 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-4-(4-methoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-86-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & & \\ & & \\ & & \\ \text{H}_2\text{N}-\text{N} & \\ & & \\ \text{S} & & \\ & & \\ \text{Ph} & & \\ \text{Me} & \\ \end{array}$$

RN 27893-88-5 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28029-80-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-90-8 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 28218-93-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-07-0 HCAPLUS

CN 2(3H)-Benzoxazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 28219-33-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-40-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 4,5,6,7-tetrahydro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 33167-60-1 HCAPLUS

CN 2(3H)-Thiazolone, 4-methyl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 41339-01-9 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 51769-42-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 7-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 60448-01-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-butyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64071-37-0 HCAPLUS

$$\begin{array}{c|c} \text{CH}_2\text{-}\text{CH} & \text{CH}_2\\ \\ \text{H}_2\text{N}-\text{N} & \text{Ph} \\ \\ \text{S} & \text{Ph} \end{array}$$

RN 64071-38-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-methylpropyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64873-66-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 67644-68-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-butyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

NAME)

RN 68746-10-1 HCAPLUS CN 2(3H)-Thiazolone, 5-methyl-3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-11-2 HCAPLUS CN 2(3H)-Thiazolone, 3,4,5-triphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 76411-65-9 HCAPLUS

CN Naphtho[2,3-d]thiazol-2(3H)-one, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 81402-80-4 HCAPLUS

CN 5-Thiazolecarbonitrile, 4-amino-2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 94267-69-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 5,6-dimethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 104410-33-5 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 108129-92-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 110226-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-acetyl-, 2-hydrazone (9CI) (CA INDEX NAME)

RN 110226-89-6 HCAPLUS

CN 3(2H)-Benzothiazolecarboxaldehyde, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 110274-77-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 111427-05-5 HCAPLUS

$$\begin{array}{c} \text{CH}_2\text{--}\text{Ph} \\ \mid \\ \text{H}_2\text{N}\text{--}\text{N} \\ \text{S} \end{array}$$

RN 111427-06-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-ethyl-4,5-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 114098-30-5 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-5-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 117043-63-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 130252-23-2 HCAPLUS

CN 6-Benzothiazolesulfonamide, 2-hydrazono-2,3-dihydro-N,N,3-trimethyl(9CI) (CA INDEX NAME)

RN 138485-20-8 HCAPLUS

CN 2(3H)-Thiazolone, 3,5-dimethyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-21-9 HCAPLUS

CN 2(3H)-Thiazolone, 5-ethyl-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 138485-22-0 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ | & \\ \text{H}_2\text{N} - \text{N} \\ \text{S} \end{array}$$

RN 139262-46-7 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 157559-65-4 HCAPLUS

CN 2(3H)-Thiazolone, 5-methyl-3-(1-methylethyl)-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 178450-81-2 HCAPLUS

CN 2(3H)-Oxazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 185454-77-7 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

(9CI) (CA INDEX NAME)

RN 200630-28-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 2-hydrazono-6-methoxy-(9CI) (CA INDEX NAME)

RN 215249-36-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-hexyl-, hydrazone (9CI) (CA INDEX NAME)

$$S = N - NH_2$$
 $(CH_2)_5 - Me$

RN 382627-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-hydroxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 383411-41-4 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-(2hydroxyethyl)- (9CI) (CA INDEX NAME)

RN 676475-28-8 HCAPLUS

RN 692250-45-6 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 718589-95-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-71-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-72-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-73-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(3-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-74-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(2-naphthalenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-75-7 HCAPLUS

CN 4-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & O \\ & | & | \\ H_2N-N & N & C-OEt \end{array}$$

RN 753027-76-8 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ | \\ \text{H}_2\text{N}-\text{N} \\ \text{S} \end{array}$$

RN 753027-77-9 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ \\ \\ \text{H}_2\text{N}-\text{N} \\ \\ \\ \text{S} \end{array}$$

RN 753027-78-0 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{CH_2-CH_2-NH_2} \\ \\ \operatorname{H_2N-N} \\ \\ \operatorname{S-} \end{array}$$

RN 753027-79-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{NH}_2\\ \\ \text{H}_2\text{N}\text{--}\text{N} \\ \\ \text{S} \end{array}$$

RN 753027-80-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-[4-(1,1-dimethylethyl)phenyl]-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-81-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ | \\ \text{H}_2\text{N} - \text{N} \longrightarrow \begin{array}{c} \text{N} \\ \text{S} \longrightarrow \end{array}$$

RN 753027-82-6 HCAPLUS

CN 2(3H)-Thiazolone, 4-methyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2\text{--}\text{CH} & \text{CH}_2\\ \\ \text{H}_2\text{N}-\text{N} & \text{Me} \end{array}$$

RN 753027-83-7 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2\text{-}\text{CH} = \text{CH}_2\\ \\ \text{H}_2\text{N}-\text{N} & \text{Bu-t} \end{array}$$

RN 753027-84-8 HCAPLUS CN 2(3H)-Thiazolone, 4-phenyl-3-(2-propenyl)-, hydrazone (9CI) (CP INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ \\ \text{H}_2\text{N} - \text{N} \longrightarrow \text{Ph} \\ \\ \text{S} \longrightarrow \text{Ph} \end{array}$$

RN 753027-85-9 HCAPLUS
CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-4-methyl-3[(phenylamino)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 753027-87-1 HCAPLUS
CN 4-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl(9CI) (CA INDEX NAME)

RN 753027-88-2 HCAPLUS

CN 5-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 753027-89-3 HCAPLUS

CN 7-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 753027-90-6 HCAPLUS

CN Acetic acid, [(2-hydrazono-2,3-dihydro-3-methyl-6benzothiazolyl)oxy]- (9CI) (CA INDEX NAME)

RN 753027-91-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-92-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-93-9 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-(4-methylphenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-94-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 6-(hexadecyloxy)-2hydrazono- (9CI) (CA INDEX NAME)

Me-
$$(CH_2)_{15}$$
- O S N-NH₂

$$(CH_2)_3$$
-SO₃H

RN 753027-95-1 HCAPLUS

CN 2(3H)-Oxazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-96-2 HCAPLUS

CN 2(3H)-Benzoxazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

IT 114252-54-9P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(oxidative hair dyes with bleaching agent contg. hydrazone compds. as developing agents)

RN 114252-54-9 HCAPLUS

● HCl

```
IT
     114252-53-8P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
     PREP (Preparation); RACT (Reactant or reagent)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
RN
     114252-53-8 HCAPLUS
CN
     2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)
         Me
IC
     ICM A61K007-13
     ICS D06P001-382
CC
     62-3 (Essential Oils and Cosmetics)
   Section cross-reference(s): 28
     hydrazone thiazole oxazole benzoxazole oxidative hair
     dye persulfate bleaching
IT
    Hair preparations
        (bleaches; oxidative hair dyes with bleaching
        agent contg. hydrazone compds. as developing agents)
IT
        (direct; oxidative hair dyes with bleaching
        agent contg. hydrazone compds. as developing agents)
ΙT
     Hair preparations
        (dyes, oxidative; oxidative hair dyes
        with bleaching agent contg. hydrazone compds. as developing
        agents)
IT
    Nitro compounds
    RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (dyes; oxidative hair dyes with
        bleaching agent contg. hydrazone compds. as developing agents)
IT
    Anthraquinone dyes
     Azo dyes
     Oxidizing agents
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
    Hydrazones
    RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
    2216-49-1D, Triphenylmethyl, derivs.
IT
   RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (dyes; oxidative hair dyes with
       bleaching agent contg. hydrazone compds. as developing agents)
IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
   pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol
```

```
91-68-9,
             91-56-5, 2,3-Indolindione
1-Naphthol
3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene
Benzothiazole, derivs. with hydrazone 95-88-5,
                                                              95-16-9D,
1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol
108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3,
1,3-Dihydroxybenzene, biological studies
                                           137-19-9,
1,5-Dichloro-2,4-dihydroxybenzene
                                    141-86-6, 2,6-Diaminopyridine
273-53-0D, Benzoxazole, derivs. with hydrazone 288-42-6D, Oxazole,
                         288-47-1D, Thiazole, derivs. with hydrazone
derivs. with hydrazone
533-31-3, 3,4-Methylenedioxyphenol
                                     575-38-2, 1,7-
Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene
591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene
619-05-6, 3,4-Diaminobenzoic acid
                                    770-25-2, 3-[(2-
Hydroxyethyl)aminolphenol 1128-67-2 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole
                                                        2380-84-9,
7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole
                  2835-95-2, 5-Amino-2-methylphenol 3131-52-0,
5,6-Dihydroxyindole 3161-77-1 3316-70-9
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
                                                    5697-02-9,
2-Methyl 1-naphthol acetate 6201-65-6, 2-Chloro-1,3-
                  6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
dihydroxybenzene
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene
                                                           7228-00-4,
2-[(3-Hydroxyphenyl)amino]acetamide
                                      7469-77-4, 2-Methyl-1-naphthol
7722-84-1, Hydrogen peroxide, biological studies 7727-21-1,
Potassium persulfate 7727-54-0, Ammonium persulfate 7732-18-5, Water, biological studies 7775-27-1, Sodium persulfate
14268-66-7, 3,4-Methylenedioxyaniline 15315-48-7
16867-03-1, 2-Amino-3-hydroxypyridine 20065-04-7
20065-05-8 20065-06-9 20125-57-9
21817-85-6 21817-86-7 21817-87-8
21817-88-9 21817-89-0 21817-90-3
21817-91-4 21817-92-5 21882-34-8
26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8,
3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0,
N-(3-Dimethylaminophenyl)urea 27893-83-0
27893-84-1 27893-86-3 27893-88-5
28020-38-4, 2,3-Diamino-6-methoxypyridine 28029-80-3
28218-90-8 28218-93-1 28219-07-0
28219-33-2 28219-40-1 29539-03-5, 5,6-Dihydroxyindoline 33167-60-1 39489-79-7,
5-Amino-2,4-dichlorophenol 41339-01-9 51769-42-7
53222-92-7, 3-Amino-2-methylphenol
                                     55302-96-0.
5-[(2-Hydroxyethyl)amino]-2-methylphenol 60448-01-3
61693-42-3, 3-Amino-2,4-dichlorophenol 64071-37-0
64071-38-1 64873-66-1 67644-68-2
67644-69-3 68746-10-1 68746-11-2
70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene
                                                       71077-37-7,
1,3-Diamino-4-(2-methoxyethoxy)benzene 71176-53-9
71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
                                                  75513-65-4,
                                                76045-64-2,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene
3-[(2-Aminoethyl)amino]aniline 76411-65-9
                                              78060-31-8
             78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-
methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
81329-90-0, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxol
81402-80-4
            81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane
83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole
                                                        84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine
                                     84540-48-7,
2,4-Diaminophenoxyacetic acid
                                84540-50-1, 3-Amino-2-chloro-6-
methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene
                                                          90840-23-6
94267-69-3 104410-33-5
                         104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene
                                        104752-51-4,
1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 108129-92-6
```

```
110102-86-8, 5-Amino-4-chloro-2-methylphenol 110226-87-4
     110226-89-6 110274-77-6 111427-05-5
     111427-06-6
                   111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
                   115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
     114098-30-5
     117043-63-7
                   122455-85-0, 5-Amino-4-fluoro-2-methylphenol
     122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene
                  137290-78-9, 5-Amino-4-methoxy-2-methylphenol
     130252-23-2
     137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol
     138485-20-8 138485-21-9 138485-22-0
     139262-46-7
                   139262-49-0
                                 139262-53-6
                                               139443-57-5,
     5-Amino-4-ethoxy-2-methylphenol
                                       141614-04-2, 2,4-Diamino-1-ethoxy-
                      141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-
     5-methvlbenzene
                    141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene
     methylbenzene
     142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 149330-25-6,
     2,6-Bis(2-hydroxyethyl)aminotoluene 157559-65-4
     168092-23-7, Di(2,4-diaminophenoxy) methane 178450-81-2
     185454-77-7 200630-28-0
                               207923-07-7,
     5-Amino-2-ethylphenol 215249-36-8
                                        307493-94-3.
     1,3-Diamino-4-(3-hydroxypropoxy)benzene 382627-87-4
     383411-41-4 676475-28-8 692250-45-6
     718589-95-8 753027-71-3 753027-72-4
     753027-73-5 753027-74-6 753027-75-7
     753027-76-8 753027-77-9 753027-78-0
     753027-79-1 753027-80-4 753027-81-5
     753027-82-6 753027-83-7 753027-84-8
     753027-85-9 753027-86-0 753027-87-1
     753027-88-2 753027-89-3 753027-90-6
     753027-91-7 753027-92-8 753027-93-9
     753027-94-0 753027-95-1 753027-96-2
     753027-97-3
                   753027-98-4
                                               753028-00-1
                                                             753028-01-2
                                 753027-99-5
     753028-02-3
                   753028-03-4
                                 753028-04-5
                                               753028-05-6
                                                             753028-06-7
                                               753028-10-3
     753028-07-8
                   753028-08-9
                                 753028-09-0
                                                             753028-11-4
     753028-12-5
                   753028-13-6
                                 753028-14-7
                                               753028-15-8
                                                             753028-16-9
                                                             753028-21-6
                   753028-18-1
     753028-17-0
                                 753028-19-2
                                               753028-20-5
     753028-22-7
                   753028-23-8
                                 753028-24-9
                                               753028-25-0
                                                             753028-26-1
     753028-27-2
                   753028-28-3
                                 753028-29-4
                                               753028-30-7
                                                             753028-31-8
                   753028-33-0
     753028-32-9
                                 753028-34-1
                                               753028-35-2
                                                             753028-36-3
                   753028-38-5
                                 753028-39-6
                                                             753028-41-0
     753028-37-4
                                               753028-40-9
                   753028-43-2
                                 753028-44-3
                                               753028-45-4
                                                             753028-46-5
     753028-42-1
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
     753028-47-6
                   753028-48-7
                                 753028-49-8
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
     114252-54-9P
     RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic
     preparation); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
     114252-53-8P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
     PREP (Preparation); RACT (Reactant or reagent)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
L29 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2004:755998 HCAPLUS
DOCUMENT NUMBER:
                         141:265567
TITLE:
                         Oxidative hair dyes with
                         bleaching agent containing hydrazone compounds
                         as developing agents
INVENTOR(S):
                         Pasguier, Cecile; Kiener, Caroline; Braun,
                         Hans-Juergen
```

IT

TΤ

IT

```
PATENT ASSIGNEE(S):
```

SOURCE:

Wella Ag, Germany

Ger. Offen., 15 pp. CODEN: GWXXBX

DOCUMENT TYPE: LANGUAGE:

Patent German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ----------DE 10309522 **A1** 20040916 DE 2003-10309522 200303 WO 2004078152 Α1 20040916 WO 2004-EP816 200401 <--W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG BR 2004005649 Α 20050719 BR 2004-5649 200401 30 EP 1601335 A1 20051207 EP 2004-706670 200401 30 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK US 2006162096 **A**1 20060727 US 2005-530065 200503 24 PRIORITY APPLN. INFO.: DE 2003-10309522 200303 05 WO 2004-EP816

200401 30

OTHER SOURCE(S): MARPAT 141:265567

The invention concerns hair prepns. for simultaneous bleaching and dyeing; the compns. include as developing agents thiazole, oxazole, imidazole, benzothiazole, benzoxazole, triazole and thiadiazole derivs. of hydrazone; further ingredients are coupling dyes and a persulfate as oxidn./bleaching agent. Thus 3,4-dimethyl-2(3H)thiazolone-1-(methylethylidene)-hydrazone was prepd. by reacting 21 g 4-methyl-3-thiosemicarbazide with 20.4 g chloroacetone in acetone at b.p. under reflux. The product was recrystd. from acetone; 23 orange powder was obtained. 3.5 G of the 3,4-dimethyl-2(3H)thiazolone-1-(methylethylidene)-hydrazone was treated with 60 mL 6 M HCl at 50°C for 30 min; the reaction product was concd. and recrystd. from ethanol to yield 2 g pink 3,4-dimethyl-2(3H)thiazolone-hydrazone hydrochloride. A hair dye compn. included (g): component A1: Plantaren 2000 (50% soln.) 4.00;

```
EDTA disodium salt 0.20; ethanol 5.00; 3,4-dimethyl-2(3H)-thiazolone-
     hydrazone hydrochloride hydrate 0.58; water to 100; component A2:
     1,3-diaminobenzene 0.27; potassium persulfate 0.67.
IT
     1128-67-2 3161-77-1 3316-70-9
     15315-48-7 20065-04-7 20065-05-8
     20065-06-9 20125-57-9 21337-39-3
     21337-40-6 21337-41-7 21337-42-8
     21337-43-9 21337-45-1 21817-85-6
     21817-86-7 21817-87-8 21817-88-9
     21817-89-0 21817-90-3 21817-91-4
     21817-92-5 21882-34-8 27893-83-0
     27893-84-1 27893-86-3 27893-88-5
     28029-80-3 28218-90-8 28218-93-1
     28219-07-0 28219-33-2 28219-40-1
     33167-60-1 41339-01-9 51769-42-7
     60448-01-3 64071-37-0 64071-38-1
     64873-66-1 67644-68-2 67644-69-3
     68746-10-1 68746-11-2 71176-53-9
     76411-65-9 81402-80-4 92474-95-8
     94267-69-3 104410-33-5 108129-92-6
     108872-91-9 109514-20-7 110226-87-4
     110226-89-6 110274-77-6 110394-83-7
     111427-05-5 111427-06-6 114098-30-5
     114252-53-8 117043-63-7 119272-02-5
     130252-23-2 138485-20-8 138485-21-9
     138485-22-0 139262-46-7 157559-65-4
     178450-81-2 185454-77-7 200630-28-0
     215249-36-8 382627-87-4 383411-41-4
     461388-49-8 676475-28-8 692250-45-6
     718589-95-8 753027-71-3 753027-72-4
     753027-73-5 753027-74-6 753027-75-7
     753027-76-8 753027-77-9 753027-78-0
     753027-79-1 753027-80-4 753027-81-5
     753027-82-6 753027-83-7 753027-84-8
     753027-85-9 753027-86-0 753027-87-1
     753027-88-2 753027-90-6 753027-91-7
     753027-92-8 753027-94-0 753027-95-1
     753027-96-2 754201-32-6 754201-33-7
     754201-34-8 754201-35-9 754201-36-0
     754201-37-1 754201-38-2 754201-39-3
     754201-40-6 754201-41-7 754201-42-8
     754201-43-9 754201-44-0 754201-45-1
     754201-46-2 754201-47-3 754201-48-4
     754201-49-5 754201-50-8 754201-51-9
     754201-52-0 754201-53-1 754201-54-2
     754201-55-3 754201-56-4 754201-57-5
     754201-58-6 754201-59-7
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
RN
     1128-67-2 HCAPLUS
CN
     2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)
```

RN 3161-77-1 HCAPLUS
CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3,4-dimethyl-,
ethyl ester (9CI) (CA INDEX NAME)

RN 3316-70-9 HCAPLUS

CN 5-Thiazolecarboxylic acid, 3-ethyl-2-hydrazono-2,3-dihydro-4-methyl-, ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Et} & \\ \mid & \\ \text{H}_2\text{N}-\text{N} & \text{Me} \\ \text{S} & \\ \hline & \text{C}-\text{OEt} \\ \mid & \\ \text{O} & \\ \end{array}$$

RN 15315-48-7 HCAPLUS

CN 3(2H)-Benzothiazoleacetic acid, 2-hydrazono-, ethyl ester (9CI) (CA INDEX NAME)

RN 20065-04-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-05-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-06-9 HCAPLUS CN 2(3H)-Benzothiazolone, 3-methyl-6-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 20125-57-9 HCAPLUS CN 2(3H)-Benzothiazolone, 3,6-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21337-39-3 HCAPLUS CN 2H-Benzimidazol-2-one, 1,3-dihydro-1,3,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\stackrel{\text{Me}}{\underset{N}{\longleftarrow}} \stackrel{\text{Me}}{\underset{N-NH_2}{\longleftarrow}}$$

RN 21337-41-7 HCAPLUS

CN 2H-Benzimidazol-2-one, 5-bromo-1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21337-42-8 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-5-methoxy-1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21337-43-9 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-1,3-dimethyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ N \\ & N$$

RN 21337-45-1 HCAPLUS

RN 21817-85-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \cdots \\ & & \\ \text{H}_2\text{N} - \text{N} & \text{Ph} \end{array}$$

RN 21817-86-7 HCAPLUS
CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-, hydrazone (9CI) (CAINDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ | & \\ \text{H}_2 \text{N} - \text{N} \\ \hline \\ \text{S} & \\ \end{array}$$

RN 21817-87-8 HCAPLUS CN 2(3H)-Thiazolone, 4-(4-methoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-88-9 HCAPLUS
CN 2(3H)-Thiazolone, 4-(4-ethoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-89-0 HCAPLUS CN 2(3H)-Thiazolone, 4-(4-chlorophenyl)-3-methyl-, hydrazone (9CI) (CF INDEX NAME)

RN 21817-90-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-91-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-bromophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 S
 B_1

RN 21817-92-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 21882-34-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-83-0 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-84-1 HCAPLUS

CN 2(3H)-Thiazolone, 5-(4-chlorophenyl)-4-(4-methoxyphenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-86-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(4-methylphenyl)-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27893-88-5 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-bromophenyl)-3-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28029-80-3 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4,5-diphenyl-, hydrazone (9CI) (CA-INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ \\ \\ \text{H}_2\text{N}-\text{N} & \\ \\ \text{S} & \\ \\ \text{Ph} & \\ \end{array}$$

RN 28218-90-8 HÇAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 28218-93-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-07-0 HCAPLUS

CN 2(3H)-Benzoxazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-33-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-40-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 4,5,6,7-tetrahydro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 33167-60-1 HCAPLUS

CN 2(3H)-Thiazolone, 4-methyl-3-phenyl-, hydrazone (9CI) (CA INDEX

RN 41339-01-9 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 51769-42-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 7-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 60448-01-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-butyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64071-37-0 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH$$
 CH_2
 H_2N-N Ph
 S

RN 64071-38-1 HCAPLUS CN 2(3H)-Thiazolone, 3-(2-methylpropyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 64873-66-1 HCAPLUS CN 2(3H)-Benzothiazolone, 6-ethoxy-3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 67644-68-2 HCAPLUS CN 2(3H)-Thiazolone, 3-butyl-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 67644-69-3 HCAPLUS CN 2(3H)-Thiazolone, 3-(1-methylethyl)-4,5-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 68746-10-1 HCAPLUS CN 2(3H)-Thiazolone, 5-methyl-3,4-diphenyl-, hydrazone (9CI) (CA INDEX

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

NAME)

$$\begin{array}{c|c} & \text{Ph} \\ \vdots \\ \text{H}_2\text{N}-\text{N} & \text{Ph} \\ & \text{S} & \\ & \text{Me} \end{array}$$

RN 68746-11-2 HCAPLUS CN 2(3H)-Thiazolone, 3,4,5-triphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 71176-53-9 HCAPLUS

CN 6-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 76411-65-9 HCAPLUS

CN Naphtho[2,3-d]thiazol-2(3H)-one, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 81402-80-4 HCAPLUS

CN 5-Thiazolecarbonitrile, 4-amino-2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ | & \\ \text{H}_2\text{N} - \text{N} \\ \text{S} & \\ \end{array}$$

RN 92474-95-8 HCAPLUS

CN 1,3,4-Thiadiazol-2(3H)-one, 3-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 94267-69-3 HCAPLUS

CN 2(3H)-Benzothiazolone, 5,6-dimethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 104410-33-5 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 108129-92-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ \text{N} \\ & \text{N$$

RN 108872-91-9 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 4-butyl-2,4-dihydro-2-methyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ & \\ N & \\ N-NH_2 \\ \\ \text{Ph} & \\ \text{Bu-n} \end{array}$$

RN 109514-20-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-[(4-methylphenyl)methyl]-, hydrazone (9CI) (CA INDEX NAME)

RN 110226-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-acetyl-, 2-hydrazone (9CI) (CA INDEX NAME)

RN 110226-89-6 HCAPLUS

CN 3(2H)-Benzothiazolecarboxaldehyde, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 110274-77-6 HCAPLUS

CN 2(3H)-Benzothiazolone, 5-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 110394-83-7 HCAPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-2,4-dimethyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 111427-05-5 HCAPLUS CN 2(3H)-Thiazolone, 4,5-dimethyl-3-(phenylmethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 111427-06-6 HCAPLUS CN 2(3H)-Thiazolone, 3-ethyl-4,5-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 114098-30-5 HCAPLUS CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-5-benzothiazolyl)-(9CI) (CA INDEX NAME)

RN 114252-53-8 HCAPLUS CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 117043-63-7 HCAPLUS
CN 2(3H)-Benzothiazolone, 5-ethoxy-3-methyl-, hydrazone (9CI) (CA

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

INDEX NAME)

119272-02-5 HCAPLUS RN

1,3,4-Thiadiazol-2(3H)-one, 3-methyl-5-(phenylamino)-, hydrazone CN (9CI) (CA INDEX NAME)

RN 130252-23-2 HCAPLUS

6-Benzothiazolesulfonamide, 2-hydrazono-2,3-dihydro-N,N,3-trimethyl-CN (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ \text{N} \\$$

138485-20-8 HCAPLUS RN

2(3H)-Thiazolone, 3,5-dimethyl-4-phenyl-, hydrazone (9CI) (CA INDEX CN NAME)

138485-21-9 HCAPLUS RN

2(3H)-Thiazolone, 5-ethyl-3-methyl-4-phenyl-, hydrazone (9CI) (CA CNINDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 138485-22-0 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-5-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 N
 Me
 N
 Me
 N
 Me

RN

139262-46-7 HCAPLUS

CN 2(3H)-Thiazolone, 4,5-diphenyl-3-propyl-, hydrazone (9CI) (CA INDEX NAME)

RN 157559-65-4 HCAPLUS

CN 2(3H)-Thiazolone, 5-methyl-3-(1-methylethyl)-4-phenyl-, hydrazone
(9CI) (CA INDEX NAME)

RN 178450-81-2 HCAPLUS

CN 2(3H)-Oxazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ | \\ \text{H}_2 \text{N} - \text{N} \\ \\ \end{array}$$

RN 185454-77-7 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

RN 200630-28-0 HCAPLUS

CN 3(2H)-Benzothiazolepropanesulfonic acid, 2-hydrazono-6-methoxy-(9CI) (CA INDEX NAME)

MeO
$$\stackrel{\cdot}{\underset{N}{\bigvee}}$$
 $\stackrel{\cdot}{\underset{N-}{\bigvee}}$ $\stackrel{N-}{\underset{N-}{\bigvee}}$ $\stackrel{\cdot}{\underset{N-}{\bigvee}}$ $\stackrel{\cdot}{\underset{N}{\stackrel{N-}{\bigvee}}$ $\stackrel{\cdot}{\underset{N}{\stackrel{N}{\longrightarrow}}$ $\stackrel{\cdot}{\underset{N}}$ $\stackrel{\cdot}{\underset{N}{\stackrel{N}{\longrightarrow}}$ $\stackrel{\cdot}{\underset{N}}$ $\stackrel{\cdot}{\underset{N}{\stackrel{N}{\longrightarrow}}$ $\stackrel{\cdot}{\underset{N}{\longrightarrow}}$ $\stackrel{\cdot}{\underset{N}}$ $\stackrel{\cdot}{\underset{N}{\longrightarrow}}$ $\stackrel{\cdot}{\underset{N}{$

RN 215249-36-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-hexyl-, hydrazone (9CI) (CA INDEX NAME)

$$S \longrightarrow N^{-NH_2}$$
 $(CH_2)_5 - Me$

RN 382627-87-4 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-hydroxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 383411-41-4 HCAPLUS

CN 6-Benzothiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-(2hydroxyethyl)- (9CI) (CA INDEX NAME)

RN 461388-49-8 HCAPLUS

CN 2H-Imidazol-2-one, 1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 676475-28-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-(4-methoxyphenyl)-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 692250-45-6 HCAPLUS

CN 2(3H)-Thiazolone, 3,4,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 718589-95-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-[1,1'-biphenyl]-4-yl-3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 N
 Ph
 N
 Ph
 N
 Ph

RN 753027-71-3 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-72-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-(3-chlorophenyl)-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-73-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(3-nitrophenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-74-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-(2-naphthalenyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-75-7 HCAPLUS

CN 4-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-3-methyl-, ethyl
ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{O} \\ & \text{II} & \text{C-OEt} \\ & \text{S} & \end{array}$$

RN 753027-76-8 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ | \\ \text{H}_2\text{N}-\text{N} \\ \\ \text{S} \end{array}$$

RN 753027-77-9 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-hydroxyethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{OH} \\ \\ \text{H}_2\text{N}\text{--}\text{N} \\ \\ \text{S} \end{array}$$

RN 753027-78-0 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{NH}_2\\ \\ \text{H}_2\text{N--}\text{N} \\ \\ \text{S} \end{array}.$$

RN 753027-79-1 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-aminoethyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{CH_2-CH_2-NH_2} \\ \\ \operatorname{H_2N-N} & \operatorname{Me} \\ \\ \operatorname{S} & \end{array}$$

RN 753027-80-4 HCAPLUS

CN 2(3H)-Thiazolone, 4-[4-(1,1-dimethylethyl)phenyl]-3-phenyl-,
hydrazone (9CI) (CA INDEX NAME)

RN 753027-81-5 HCAPLUS

CN 2(3H)-Thiazolone, 3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ | \\ \text{H}_2\text{N} - \text{N} \longrightarrow \\ \text{S} \longrightarrow \\ \end{array}$$

RN 753027-82-6 HCAPLUS

CN 2(3H)-Thiazolone, 4-methyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2\text{--}\text{CH} & \text{CH}_2\\ \\ \text{H}_2\text{N}-\text{N} & \text{Me} \end{array}$$

RN 753027-83-7 HCAPLUS

CN 2(3H)-Thiazolone, 4-(1,1-dimethylethyl)-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH = CH_2$$
 $H_2N-N = S$
 $Bu-t$

RN 753027-84-8 HCAPLUS

CN 2(3H)-Thiazolone, 4-phenyl-3-(2-propenyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH} \longrightarrow \text{CH}_2 \\ \\ \text{H}_2\text{N}-\text{N} \longrightarrow \begin{array}{c} \text{N} \\ \\ \text{S} \longrightarrow \end{array} \\ \end{array} \text{Ph}$$

RN 753027-85-9 HCAPLUS

CN 5-Thiazolecarboxylic acid, 2-hydrazono-2,3-dihydro-4-methyl-3-[(phenylamino)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

RN 753027-86-0 HCAPLUS

CN 2(3H)-Benzothiazolone, 7-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-87-1 HCAPLUS

CN 4-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-(9CI) (CA INDEX NAME)

753027-88-2 HCAPLUS RN

5-Benzothiazolesulfonic acid, 2-hydrazono-2,3-dihydro-3-methyl-CN (9CI) (CA INDEX NAME)

RN

753027-90-6 HCAPLUS Acetic acid, [(2-hydrazono-2,3-dihydro-3-methyl-6-CN benzothiazolyl)oxyj- (9CI) (CA INDEX NAME)

753027-91-7 HCAPLUS RN

2(3H)-Benzothiazolone, 3-(2-hydroxyethyl)-, hydrazone (9CI) CN INDEX NAME)

753027-92-8 HCAPLUS RN

2(3H)-Benzothiazolone, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX CNNAME)

RN753027-94-0 HCAPLUS

3(2H)-Benzothiazolepropanesulfonic acid, 6-(hexadecyloxy)-2-CN hydrazono- (9CI) (CA INDEX NAME)

Me- (CH₂)₁₅-O
$$N-NH_2$$
 (CH₂)₃-SO₃H

RN753027-95-1 HCAPLUS

CN 2(3H)-Oxazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 753027-96-2 HCAPLUS

CN 2(3H)-Benzoxazolone, 3-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-32-6 HCAPLUS

CN 2H-Imidazol-2-one, 1,3-diethyl-1,3-dihydro-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-33-7 HCAPLUS

CN 2H-Imidazol-2-one, 1,3-dihydro-1,3-bis(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-34-8 HCAPLUS

CN 2H-Imidazol-2-one, 1,3-bis(2-aminoethyl)-1,3-dihydro-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-35-9 HCAPLUS

CN 2H-Imidazol-2-one, 1,3-dihydro-4-methoxy-1,3-dimethyl-, hydrazone
(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \\ \\ \text{N} \\ \\ \text{N-NH}_2 \\ \\ \text{MeO} \\ \\ \text{Me} \end{array}$$

RN 754201-36-0 HCAPLUS CN 2H-Imidazol-2-one, 1,3-dihydro-1,3,4-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ \\ \\ \text{N} & \\ \text{N-NH}_2 \\ \\ \text{Me} & \\ \text{Me} & \\ \end{array}$$

RN 754201-37-1 HCAPLUS CN 2H-Imidazol-2-one, 1,3-dihydro-1,3-dimethyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ & \\ & \\ N & \\ N-NH_2 \\ \\ \text{Ph} & \\ \text{Me} \end{array}$$

RN 754201-38-2 HCAPLUS CN 1H-Imidazole-4-carboxylic acid, 2-hydrazono-2,3-dihydro-1,3-dimethyl-(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ \\ \text{H}_2\text{N} - \text{N} \\ & \\ \text{N} \end{array} \quad \text{CO}_2\text{H}$$

RN 754201-39-3 HCAPLUS CN 2H-Imidazol-2-one, 4-amino-1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA INDEX: NAME)

RN 754201-40-6 HCAPLUS

CN 2H-Imidazol-2-one, 4-(dimethylamino)-1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-41-7 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-diethyl-1,3-dihydro-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-42-8 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-1,3-bis(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-43-9 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-bis(2-aminoethyl)-1,3-dihydro-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-44-0 HCAPLUS
CN 2H-Benzimidazol-2-one, 4,7-dibromo-1,3-dihydro-1,3-dimethyl-,
hydrazone (9CI) (CA INDEX NAME)

RN 754201-45-1 HCAPLUS
CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-2,4-dimethyl-, hydrazone (9CI)
(CA INDEX NAME)

RN 754201-47-3 HCAPLUS CN 3H-1,2,4-Triazol-3-one, 2,4-bis(2-aminoethyl)-2,4-dihydro-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-48-4 HCAPLUS CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-2,4,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

Me
$$N-NH_2$$
 $N-NH_2$ Me Me

RN 754201-49-5 HCAPLUS
CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-5-methoxy-2,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{Me} \\ \\ \\ \text{N} \\ \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{N} \\ \text{Me} \end{array}$$

RN 754201-51-9 HCAPLUS CN 1H-1,2,4-Triazole-3-carboxylic acid, 5-hydrazono-4,5-dihydro-1,4-dimethyl- (9CI) (CA INDEX NAME)

Me N CO₂H
$$H_2N-N$$
 Me

RN 754201-52-0 HCAPLUS CN 3H-1,2,4-Triazol-3-one, 5-amino-2,4-dihydro-2,4-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ & \\ N \\ & N \\$$

RN 754201-53-1 HCAPLUS CN 1,3,4-Thiadiazol-2(3H)-one, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-54-2 HCAPLUS CN 1,3,4-Thiadiazol-2(3H)-one, 3-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-55-3 HCAPLUS CN 1,3,4-Thiadiazol-2(3H)-one, 3-(2-aminoethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ S & & & \\ & & & \\ & & & \\ N-NH_2 & & \\ \end{array}$$

RN 754201-56-4 HCAPLUS
CN 1,3,4-Thiadiazol-2(3H)-one, 5-amino-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 754201-57-5 HCAPLUS CN 1,2,4-Thiadiazol-5(4H)-one, 3-(dimethylamino)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 754201-58-6 HCAPLUS CN 1,2,4-Thiadiazole-3-carboxylic acid, 5-hydrazono-4,5-dihydro-4-methyl- (9CI) (CA INDEX NAME)

RN 754201-59-7 HCAPLUS
CN 3H-1,2,4-Triazol-3-one, 2,4-bis(2-aminoethyl)-2,4-dihydro-5-phenyl-,
hydrazone (9CI) (CA INDEX NAME)

IT 114252-54-9P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (oxidative hair dyes with bleaching agent contg. hydrazone compds. as developing agents)

RN 114252-54-9 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-dimethyl-, hydrazone, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

IC

```
ICM A61K007-13
CC
     62-3 (Essential Oils and Cosmetics)
     Section cross-reference(s): 28
ST
     hydrazone thiazole oxazole benzoxazole oxidative hair
     dye persulfate bleaching
IT
     Hair preparations
        (bleaches; oxidative hair dyes with bleaching
        agent contg. hydrazone compds. as developing agents)
IT
        (direct; oxidative hair dyes with bleaching
        agent contg. hydrazone compds. as developing agents)
     Hair preparations
IT
        (dyes, oxidative; oxidative hair dyes
        with bleaching agent contg. hydrazone compds. as developing
        agents)
TТ
     Oxidizing agents
     рΗ
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
IT
     Hydrazones
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
     contg. hydrazone compds. as developing agents)
83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
ΤT
     pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3,
                 91-56-5, 2,3-Indolindione 91-68-9,
     1-Naphthol
     3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene
Benzothiazole, derivs. with hydrazone 95-88-5,
     1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol
     108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3,
     1,3-Dihydroxybenzene, biological studies 137-19-9,
     1,5-Dichloro-2,4-dihydroxybenzene
                                         141-86-6, 2,6-Diaminopyridine
     273-53-0D, Benzoxazole, derivs. with hydrazone
                                                       288-32-4D,
     Imidazole, derivs. with hydrazone 288-42-6D, Oxazole, derivs. with
                 288-47-1D, Thiazole, derivs. with hydrazone
     hydrazone
     1H-1,2,4-Triazole, derivs. with hydrazone 289-06-5D, Thiadiazole,
     derivs. with hydrazone 533-31-3, 3,4-Methylenedioxyphenol
     575-38-2, 1,7-Dihydroxynaphthalene
                                           582-17-2, 2,7-
     Dihydroxynaphthalene 591-27-5, 3-Aminophenol
                                                        608-25-3,
     1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1128-67-2
     1687-53-2, 5-Amino-2-methoxyphenol
                                          1953-54-4, 5-Hydroxyindole
     2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
     4-Hydroxyindole
                      2835-95-2, 5-Amino-2-methylphenol 3131-52-0,
     5,6-Dihydroxyindole 3161-77-1 3316-70-9
     5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
     2-Methyl 1-naphthol acetate 6201-65-6, 2-Chloro-1,3-
     dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
     6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4,
     2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
     7722-84-1, Hydrogen peroxide, biological studies 7727-21-1,
     Potassium persulfate 7727-54-0, Ammonium persulfate
                                                               7732-18-5,
     Water, biological studies 7775-27-1, Sodium persulfate
```

```
14268-66-7, 3,4-Methylenedioxyaniline 15315-48-7
16867-03-1, 2-Amino-3-hydroxypyridine 20065-04-7
20065-05-8 20065-06-9 20125-57-9
21337-39-3 21337-40-6 21337-41-7
21337-42-8 21337-43-9 21337-45-1
21817-85-6 21817-86-7 21817-87-8
21817-88-9 21817-89-0 21817-90-3
21817-91-4 21817-92-5 21882-34-8
26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine
                                                       26021-57-8,
3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine
                                           26455-21-0,
N-(3-Dimethylaminophenyl)urea 27893-83-0
27893-84-1 27893-86-3 27893-88-5
28020-38-4, 2,3-Diamino-6-methoxypyridine 28029-80-3
28218-90-8 28218-93-1 28219-07-0
28219-33-2 28219-40-1
                      29539-03-5,
5,6-Dihydroxyindoline 33167-60-1
                                   39489-79-7,
5-Amino-2,4-dichlorophenol 41339-01-9 51769-42-7
53222-92-7, 3-Amino-2-methylphenol
                                     55302-96-0,
5-[(2-Hydroxyethyl)amino]-2-methylphenol 60448-01-3
61693-42-3, 3-Amino-2,4-dichlorophenol 64071-37-0
64071-38-1 64873-66-1 67644-68-2
67644-69-3 68746-10-1 68746-11-2
70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7,
1,3-Diamino-4-(2-methoxyethoxy)benzene 71176-53-9
71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene
                                              76045-64-2,
3-[(2-Aminoethyl)amino]aniline 76411-65-9
                                             78661-33-3,
2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene
                                                   80592-80-9,
3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol
                                                 80592-81-0,
3-[(2-Hydroxyethyl)amino]-2-methylphenol
                                           81329-90-0,
5-[(2-Hydroxyethyl)amino]-1,3-benzodioxol 81402-80-4
81892-72-0, 1,3-Di(2,4-diaminophenoxy) propane
                                                 83763-47-7,
2-Amino-4-[(2-hydroxyethyl)amino]anisole
                                           84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine
                                    84540-48-7,
2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-
             85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine
methylphenol
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine
             94082-77-6, 2,4-Diamino-1,5-di(2-
hydroxyethoxy) benzene 94267-69-3 104410-33-5
104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
                                                    104752-51-4,
1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 108129-92-6
108872-91-9 109514-20-7
                          110102-86-8,
5-Amino-4-chloro-2-methylphenol 110226-87-4
110226-89-6 110274-77-6 110394-83-7
111427-05-5 111427-06-6
                         111451-24-2
2,6-Diamino-3,5-dimethoxypyridine 114098-30-5
114252-53-8 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
117043-63-7 119272-02-5
                         122455-85-0,
5-Amino-4-fluoro-2-methylphenol
                                  122481-67-8, 2,4-Di[(2-
hydroxyethyl)amino]-1,5-dimethoxybenzene 130252-23-2
137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9,
5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol
138485-20-8 138485-21-9 138485-22-0
             139443-57-5, 5-Amino-4-ethoxy-2-methylphenol
139262-46-7
141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
2,4-Diamino-1-fluoro-5-methylbenzene
                                       142082-56-2,
3-[(2-Methoxyethyl)amino]phenol
                                  149330-25-6, 2,6-Bis(2-
hydroxyethyl)aminotoluene 157559-65-4
                                       168092-23-7,
Di(2,4-diaminophenoxy)methane 178450-81-2
185454-77-7 200630-28-0
                          207923-07-7,
5-Amino-2-ethylphenol 215249-36-8
                                   307493-94-3.
1,3-Diamino-4-(3-hydroxypropoxy)benzene 382627-87-4.
383411-41-4 461388-49-8 676475-28-8
692250-45-6 718589-95-8 753027-71-3
```

```
753027-72-4 753027-73-5 753027-74-6
     753027-75-7 753027-76-8 753027-77-9
     753027-78-0 753027-79-1 753027-80-4
     753027-81-5 753027-82-6 753027-83-7
     753027-84-8 753027-85-9 753027-86-0
     753027-87-1 753027-88-2 753027-90-6
     753027-91-7 753027-92-8 753027-94-0
     753027-95-1 753027-96-2 754201-32-6
     754201-33-7 754201-34-8 754201-35-9
     754201-36-0 754201-37-1 754201-38-2
     754201-39-3 754201-40-6 754201-41-7
     754201-42-8 754201-43-9 754201-44-0
     754201-45-1 754201-46-2 754201-47-3
     754201-48-4 754201-49-5 754201-50-8
     754201-51-9 754201-52-0 754201-53-1
     754201-54-2 754201-55-3 754201-56-4
     754201-57-5 754201-58-6 754201-59-7
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
IT
     114252-54-9P
     RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);
     PREP (Preparation); RACT (Reactant or reagent)
        (oxidative hair dyes with bleaching agent
        contg. hydrazone compds. as developing agents)
L29 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:291073 HCAPLUS
DOCUMENT NUMBER:
                        140:326607
TITLE:
                        Hair dye composition
                        comprising at least a heterocyclic oxidation
                        base and at least a substituted
                        2,3-diaminopyridine coupler
INVENTOR (S):
                        Kravtchenko, Sylvain; Lagrange, Alain; Fadli,
                        Aziz
PATENT ASSIGNEE(S):
                        L'Oreal, Fr.
                        Fr. Demande, 28 pp.
SOURCE:
                        CODEN: FRXXBL
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                     KIND DATE
    PATENT NO.
                                         APPLICATION NO.
                        ----
                                           -----
    FR 2845283
                        A1
                               20040409
                                           FR 2002-12360
                                                                  200210
                             20060505
20040428
    FR 2845283
                        B1
    EP 1413286
                         A1
                               20040428
                                           EP 2003-292454
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
            SK
PRIORITY APPLN. INFO.:
                                           FR 2002-12360
                                                                  200210
OTHER SOURCE(S): MARPAT 140:326607
    A hair dye compn. for dyeing of
    keratinous fibers contains at least a heterocyclic oxidn.
    base and at least a substituted 2,3-diaminopyridine coupler. A
```

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

hair dve contained 5-methyl-3,7diaminopyrazolopyrimidine 0.76, 6-methoxy-3-amino 2-[3'-(3"-methylimidazolium)propyl]aminopyridine 1.11, polyglycerol oleyl alc. 9.7, oleic acid 3.0, ethoxylated oleyl amine (Ethomeen 012) 7.0, 55% diethylaminopropyl laurylamino succinamate sodium salt 3.09, oleic alc. 5.0, oleic acid diethanolamide 12.0, propylene glycol 3.5, Et alc. 7.0, dipropyleneglycol 0.5, propylene glycol monomethyl ether 9.0, 35% sodium metabisulfite aq soln. 0.46, ammonium acetate 0.8, antioxidant q.s., sequestrant q.s., perfume q.s., preservatives q.s., and water q.s. 100.0 g. IT 1128-67-2, n-Methyl-benzothiazolone-2-hydrazone 21337-45-1 27256-92-4, n-Methyl-pyridone-4hydrazone 28218-86-2, n-Methyl-quinolone-4-hydrazone 28219-33-2 28219-35-4, n-Methyl-pyridone-2hydrazone 28219-36-5, 1,2,6-Trimethyl-4-pyridone hydrazone 28219-37-6, 1-Methyl-quinolone-2-hydrazone 28219-38-7 28219-39-8 28219-40-1 28219-41-2, 1,2,5-Trimethyl-3-pyrazolone hydrazone 28381-00-2 677761-44-3 677761-46-5 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hair dye compn. comprising at least heterocyclic oxidn. base and at least substituted diaminopyridine coupler) RN 1128-67-2 HCAPLUS 2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME) CN

RN 27256-92-4 HCAPLUS CN 4(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-86-2 HCAPLUS
CN 4(1H)-Quinolinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-33-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-35-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-36-5 HCAPLUS

CN 4(1H)-Pyridinone, 1,2,6-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-37-6 HCAPLUS

CN 2(1H)-Quinolinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-38-7 HCAPLUS

CN 4(1H)-Pyridinone, 1,2,6-trimethyl-3-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-39-8 HCAPLUS

CN 4(1H)-Pyridinone, 3-amino-1,2,6-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-40-1 HCAPLUS

RN 28219-41-2 HCAPLUS

CN 3H-Pyrazol-3-one, 1,2-dihydro-1,2,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ & \\ & \\ \text{N} & \\ \text{N-NH}_2 \end{array}$$

RN 28381-00-2 HCAPLUS

CN 3H-Indazol-3-one, 2-ethyl-1,2-dihydro-1-methyl-5-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN677761-44-3 HCAPLUS

CN 3H-Indazol-3-one, 1,2-dihydro-1,2-dimethyl-, hydrazone (9CI) INDEX NAME)

677761-46-5 HCAPLUS RN

CN3H-Indazol-3-one, 1,2-dihydro-1,2,5-trimethyl-, hydrazone (9CI) INDEX NAME)

$$\stackrel{\text{Me}}{\underset{N-NH_2}{|}}$$

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 27

ST oxidative hair dye heterocyclic oxidn base diaminopyridine coupler

IT Hair preparations

(dyes, oxidative; hair dye compn.

comprising at least heterocyclic oxidn. base and at least

substituted diaminopyridine coupler)

ΙT 1004-76-8, 5,6-Diamino-2-thio-Uracil 1128-67-2, n-Methyl-benzothiazolone-2-hydrazone 3240-72-0, 5,6-Diamino-Uracil 4318-76-7, 2,5-Diamino-pyridine 4149-06-8 5142-72-3 5440-00-6, 5,6-Diamino-1,3-dimethyl-Uracil 6126-22-3 6604-51-9 6967-12-0, 7404-68-4, 1H-Indazole-5,6-diamine 1H-Indazol-6-amine 13300-32-8 13558-26-4 13558-27-5 15837-47-5 16461-98-6, 1H-Pyrazole-3,4-diamine 19933-22-3 21337-45-1 27256-92-4, n-Methyl-pyridone-4-hydrazone 28218-86-2 n-Methyl-quinolone-4-hydrazone 28218-87-3 28219-33-2 28219-35-4, n-Methyl-pyridone-2-hydrazone 28219-36-5 , 1,2,6-Trimethyl-4-pyridone hydrazone 28219-37-6, 1-Methyl-quinolone-2-hydrazone 28219-38-7 28219-39-8 28219-40-1 28219-41-2, 1,2,5-Trimethyl-3-pyrazolone hydrazone 28381-00-2

39761-89-2 31595-88-7 36887-98-6 39761-90-5, 1H-Indazole-6,7-diamine 39761-91-6 40959-24-8 45514-38-3,

```
46160-00-3 46183-30-6
                                                             52943-88-1
     4,5-Diamino-1-methyl-pyrazole
     55198-95-3 59056-56-3, 5,7,8-Quinolinetriamine 59056-60-9
     61336-99-0
                  61541-46-6
                              61683-69-0 61683-70-3
                                                      61683-71-4
                                          96886-30-5 103796-38-9
     61683-72-5
                 61920-56-7
                              61920-60-3
                 114087-64-8 118020-67-0, 1H-Pyrazole-3,4,5-triamine
     111928-66-6
     132026-22-3
                 132026-42-7
                                136548-64-6 136873-17-1 141665-16-9
                  155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-pyrazole
     142648-55-3
                  184172-97-2 184172-99-4
184173-03-3 184173-43-1
     184172-85-8
                                              184173-00-0
                                                           184173-01-1
     184173-02-2
                  184173-03-3
                                184173-43-1
                                              184173-45-3
                                                            184173-47-5
                 191731-07-4 191731-08-5
                                             201599-12-4,
     191731-06-3
     Pyrazolo[1,5-a]pyrimidine-3,7-diamine 201599-15-7 201599-22-6
     201599-23-7 227611-00-9 227611-18-9
                                              228569-19-5 362612-41-7
                                554449-77-3
                  452081-02-6
     381212-15-3
                                              554449-78-4
                                                            554449-79-5
     554449-80-8
                  554449-81-9
                                554449-82-0
                                              554449-83-1
                                                            577980-54-2
                 577980-56-4
     577980-55-3
                                                            577980-60-0
                                577980-57-5
                                              577980-58-6
     676609-28-2
                 676609-29-3
                                676609-30-6
                                              676609-31-7
                                                            676609-32-8
     676609-33-9
                 676609-34-0
                                676609-35-1
                                              676609-36-2
                                                            676609-37-3
     676609-38-4
                  676609-39-5
                                676609-40-8 676609-41-9
                                                            676609-42-0
                                676609-45-3 676609-46-4
     676609-43-1
                  676609-44-2
                                                            676609-47-5
     677761-24-9
                  677761-25-0
                                677761-26-1
                                              677761-27-2
                                                            677761-28-3
                                677761-31-8 677761-32-9
                                                           677761-33-0
     677761-29-4
                  677761-30-7
                                677761-36-3, Pyrazolo[5,1-b]thiazol-7-
     677761-34-1
                 677761-35-2
     amine 677761-37-4 677761-38-5 677761-39-6 677761-40-9
     677761-41-0, Pyrazolo[1,5-b]pyridazin-3-amine 677761-42-1
     677761-43-2 677761-44-3 677761-46-5
     677761-47-6
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dye compn. comprising at least
       heterocyclic oxidn. base and at least substituted diaminopyridine
        coupler)
REFERENCE COUNT:
                        6
                              THERE ARE 6 CITED REFERENCES AVAILABLE FOR
                              THIS RECORD. ALL CITATIONS AVAILABLE IN
                              THE RE FORMAT
L29 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                        2004:19747 HCAPLUS
DOCUMENT NUMBER:
                        140:81863
TITLE:
                        Hair dyeing compositions
                        containing an aldehyde
                        precursor, an enzyme and a
                        hydrazone
INVENTOR(S):
                        Burgaud, Herve; Pereira, Rui; Belcour Castro,
                        Beatrice
                        L'oreal, Fr.
PATENT ASSIGNEE(S):
SOURCE:
                        Fr. Demande, 27 pp.
                        CODEN: FRXXBL
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        French
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2841779	A1	20040109	FR 2002-8493	200207 05
FR 2841779 EP 1415642	B1 A1	20060127 20040506	< EP 2003-291622	200307

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,

<--

US 2004133992	A1	20040715	US 2003-611968		
					200307
			4		03
JP 2004035558	A2	20040205 ⁱ	JP 2003-192693		
					200307
•				•	07
			<- -		
JP 3739371	B2	20060125			
PRIORITY APPLN. INFO.:			FR 2002-8493	Α	
					200207
					05
			<		
		•	US 2002-408897P	P	
					200209
					09

OTHER SOURCE(S): MARPAT 140:81863

AB The present invention relates to a compn. for the dyeing of keratin fibers, and in particular, human hair fibers, contg. a precursor of aldehyde, an enzyme able to generate an aldehyde starting from the aldehyde precursor and a heteroarom.

hydrazone. Thus, EtOH was oxidized to acetalhyde by alc. oxidase from Picihia pastoris. This was then mixed with N-ethanol-pyridine-2-hydrazone to obtain a final mixt. concn. of 0.3M. Theses compds. were applied on hair fibers at 37°.

IT 28219-35-4 642080-38-4 642080-39-5

RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses) (hair dyeing compns. contg. aldehyde precursor and enzyme and hydrazone)

RN 28219-35-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 642080-38-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 642080-39-5 HCAPLUS

CN 2(1H)-Pyridinone, 4-methoxy-1-methyl-, hydrazone (9CI) (CA INDEX NAME)

```
H2N-
MeO
IC
     ICM A61K007-13
     62-3 (Essential Oils and Cosmetics)
CC
ST
     hair dye aldehyde precursor
     enzyme hydrazone
IT
     Amines, biological studies
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (diamines, phenylenalkylene; hair dyeing
        compns. contg. aldehyde precursor and
        enzyme and hydrazone)
IT
     Hair preparations
        (dyes; hair dyeing compns. contg.
        aldehyde precursor and enzyme and
        hydrazone)
IT
     Candida
     Candida boidinii
     Gastropoda
     Human
     Manduca
     Manduca sexta
     Oxidizing agents
     Pichia
     Pichia pastoris
     Pinus
     Pinus strobus
     Plectranthus
     Plectranthus coleoides
     Pleurotus
     Pleurotus pulmonarius
     Pseudomonas
     Pseudomonas pseudoalcaligenes
        (hair dyeing compns. contg. aldehyde
        precursor and enzyme and hydrazone)
TΤ
     Enzymes, biological studies
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dyeing compns. contg. aldehyde
        precursor and enzyme and hydrazone)
ΙT
     Aldehydes, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hair dyeing compns. contg. aldehyde
        precursor and enzyme and hydrazone)
ΙT
     Carboxylic acids, biological studies
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (oxo; hair dyeing compns. contg.
        aldehyde precursor and enzyme and
        hydrazone)
IT
     Alcohols, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (primary; hair dyeing compns. contg.
        aldehyde precursor and enzyme and
        hydrazone)
     72-19-5, L-Threonine, biological studies
IT
                                                 107-97-1, Sarcosine
                           1118-68-9, Dimethylglycine 1188-07-4
     156-06-9
                611-73-4
     6384-08-3, Methyl L-glutamate
     RL: BUU (Biological use, unclassified); BIOL (Biological study);
     USES (Uses)
        (hair dyeing compns. contg. aldehyde
```

```
precursor and enzyme and hydrazone)
    9073-63-6, Alcohol Oxidase 28219-35-4 642080-38-4
    642080-39-5
    RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL
     (Biological study); RACT (Reactant or reagent); USES (Uses)
        (hair dyeing compns. contg. aldehyde
       precursor and enzyme and hydrazone)
IT
     95-55-6D, o-Aminophenol, derivs. 106-50-3D, p-Phenylenediamine,
              108-45-2D, m-Phenylenediamine, derivs. 123-30-8D,
    p-Aminophenol, derivs. 591-27-5D, m-Aminophenol, derivs.
   612-76-0D, m-Diphenol, derivs.
    RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dyeing compns. contg. aldehyde
       precursor and enzyme and hydrazone)
     642080-40-8P 642080-41-9P 642080-42-0P 642080-43-1P
IT
                  642080-45-3P 642080-46-4P 642080-47-5P
     642080-44-2P
     642080-48-6P
    RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (hair dyeing compns. contg. aldehyde
       precursor and enzyme and hydrazone)
     64-17-5, Ethanol, reactions 67-56-1, Methanol, reactions
   100-51-6, Benzyl alcohol, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
        (hair dyeing compns. contg. aldehyde
       precursor and enzyme and hydrazone)
                              THERE ARE 9 CITED REFERENCES AVAILABLE FOR
REFERENCE COUNT:
                              THIS RECORD. ALL CITATIONS AVAILABLE IN
                              THE RE FORMAT
L29 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
                   2004:19745 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        140:81861
TITLE:
                        Hair dye compositions
                        containing six-membered heterocycles.
                        Terranova, Eric; Birault, Veronique
INVENTOR(S):
PATENT ASSIGNEE(S):
                        L'oreal, Fr.
                        Fr. Demande, 27 pp.
                        CODEN: FRXXBL
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                         APPLICATION NO.
                        KIND DATE
    PATENT NO.
                                                                  DATE
    FR 2841777
                        A1 20040109
                                         FR 2002-8459
                                                                   200207
                                                                   05
                                                <--
    FR 2841777
                         B1
                               20050610
PRIORITY APPLN. INFO.:
                                           FR 2002-8459
                                                                   200207
                                                                   05
OTHER SOURCE(S):
                        MARPAT 140:81861
AB A hair dye compn. for use in human hair contains
    a 6-membered heterocyclic hydrazone. Thus, N-(2-
    hydroxyethyl)pyridone-2-hydrazone (I) was by then reaction of
    2-chloropyridine with chloroethanol in EtOAc, followed by the
   reaction with 2-acetylhydrazine and hydrolysis with 6N HCl. A
    compn. was prepd. contg. I 10-2 and 2-methykphenol 10-2 mole, water
  \cdot qs to 100 g and the usual surfactants.
IT 642083-01-0 642083-02-1 642083-03-2
  642083-04-3 642083-05-4 642083-06-5
```

642083-07-6 642083-08-7 642083-09-8
642083-10-1 642083-11-2 642083-12-3
642083-13-4 642083-14-5 642083-15-6
642083-16-7 642083-17-8 642083-18-9
642083-19-0

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dye compns. contg. 6-membered
heterocycles)

RN 642083-01-0 HCAPLUS
CN 2(1H)-Pyridinone, 1-(2,3-dihydroxypropyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 642083-02-1 HCAPLUS CN 1(2H)-Pyridinepropanoic acid, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 642083-03-2 HCAPLUS
CN 1(2H)-Pyridineethanesulfonic acid, 2-hydrazono- (9CI) (CA INDEX NAME)

RN 642083-04-3 HCAPLUS
CN 2(1H)-Pyridinone, 1-[2-(dimethylamino)ethyl]-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{|c|c|c|} \hline & \text{CH}_2\text{--}\text{CH}_2\text{--}\text{NMe}_2 \\ \hline & \\ & \text{N--}\text{NH}_2 \\ \hline \end{array}$$

RN 642083-05-4 HCAPLUS CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-4-methoxy-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 CH_2-CH_2-OH
 MeO

RN 642083-06-5 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2,3-dihydroxypropyl)-4-methoxy-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \operatorname{H}_2\mathrm{N}-\operatorname{N} & \operatorname{OH} \\ & \operatorname{CH}_2-\operatorname{CH}-\operatorname{CH}_2-\operatorname{OH} \\ \\ \operatorname{MeO} & \end{array}$$

RN 642083-07-6 HCAPLUS

CN 1(2H)-Pyridinepropanoic acid, 2-hydrazono-4-methoxy- (9CI) (CA INDEX NAME)

RN642083-08-7 HCAPLUS

1(2H)-Pyridineethanesulfonic acid, 2-hydrazono-4-methoxy- (9CI) CN (CA INDEX NAME)

$$H_2N-N$$
 $CH_2-CH_2-SO_3H$
 MeO

RN642083-09-8 HCAPLUS

CN2(1H)-Pyridinone, 1-[2-(dimethylamino)ethyl]-4-methoxy-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \mathbf{H_2N-N} \\ \hline \\ \mathbf{N} \\ \hline \\ \mathbf{MeO} \\ \end{array}$$

RN642083-10-1 HCAPLUS

CN 2(1H)-Pyridinone, 4-(dimethylamino)-1-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

$$H_2N-N$$
 CH_2-CH_2-OH
 Me_2N

$$H_2N-N$$
 OH $CH_2-CH-CH_2-OH$ Me_2N

RN 642083-12-3 HCAPLUS CN 1(2H)-Pyridinepropanoic acid, 4-(dimethylamino)-2-hydrazono- (9CI) (CA INDEX NAME)

$$H_2N-N$$
 $CH_2-CH_2-CO_2H$
 Me_2N

RN 642083-13-4 HCAPLUS CN 1(2H)-Pyridineethanesulfonic acid, 4-(dimethylamino)-2-hydrazono-(9CI) (CA INDEX NAME)

$$H_2N-N$$
 $CH_2-CH_2-SO_3H$
 Me_2N

$$\begin{array}{c|c} & \text{H}_2\text{N}-\text{N} \\ & \text{CH}_2-\text{CH}_2-\text{NMe}_2 \\ \\ & \text{Me}_2\text{N} \end{array}$$

RN 642083-15-6 HCAPLUS CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-4-(1-pyrrolidinyl)-, hydrazone (9CI) (CA INDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

RN 642083-16-7 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2,3-dihydroxypropyl)-4-(1-pyrrolidinyl)-,
hydrazone (9CI) (CA INDEX NAME)

$$CH_2-CH-CH_2-OH$$
 $N-NH_2$

RN 642083-17-8 HCAPLUS

CN 1(2H)-Pyridinepropanoic acid, 2-hydrazono-4-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

RN 642083-18-9 HCAPLUS

CN 1(2H)-Pyridineethanesulfonic acid, 2-hydrazono-4-(1-pyrrolidinyl)-(9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{CH}_2\text{--}\text{CH}_2\text{--}\text{SO}_3\text{H} \\ \\ \text{N--}\text{NH}_2 \end{array}$$

RN 642083-19-0 HCAPLUS

CN 2(1H)-Pyridinone, 1-[2-(dimethylamino)ethyl]-4-(1-pyrrolidinyl)-,
hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \\ \end{array} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ N-NH_2 \end{array}$$

IT 642080-38-4P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (hair dye compns. contg. 6-membered

heterocycles) RN 642080-38-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

```
CH2-CH2-OH
IC
     ICM A61K007-13
     ICS C07D213-76
CC
     62-3 (Essential Oils and Cosmetics)
     Section cross-reference(s): 2, 27
ST
     hair dye heterocycle; hydrazone hydroxyethyl
     pyridone hair dye prepn
IT
     Amines, biological studies
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (diamines, arom., phenylalkylene; hair dye
        compns. contg. 6-membered heterocycles)
IT
        (direct; hair dye compns. contg. 6-membered
        heterocycles)
IT
     Hair preparations
        (dyes, oxidative; hair dye compns.
        contg. 6-membered heterocycles)
TΤ
     Hair preparations
        (dyes; hair dye compns. contg.
        6-membered heterocycles)
IT
     Hair
     Human
     Oxidizing agents
        (hair dye compns. contq. 6-membered
        heterocycles)
TT
     95-55-6D, derivs.
                         106-50-3D, 1,4-Benzenediamine, derivs.
     108-45-2D, 1,3-Benzenediamine, derivs. 108-46-3D, 1,3-Benzenediol,
     derivs.
              123-30-8D, derivs.
                                    591-27-5D, derivs.
                                                          2835-95-2
     642083-01-0 642083-02-1 642083-03-2
     642083-04-3 642083-05-4 642083-06-5
     642083-07-6 642083-08-7 642083-09-8
     642083-10-1 642083-11-2 642083-12-3
     642083-13-4 642083-14-5 642083-15-6
     642083-16-7 642083-17-8 642083-18-9
     642083-19-0
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dye compns. contg. 6-membered
        heterocycles)
TΥ
     642080-38-4P
     RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (hair dye compns. contg. 6-membered
        heterocycles)
IT
     107-07-3, reactions
                           109-09-1
                                      1068-57-1
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hair dye compns. contg. 6-membered
        heterocycles)
IT
     642082-99-3P
                    642083-00-9P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
     RACT (Reactant or reagent)
        (hair dye compns. contg. 6-membered
        heterocycles)
REFERENCE COUNT:
                         5
                               THERE ARE 5 CITED REFERENCES AVAILABLE FOR
                               THIS RECORD. ALL CITATIONS AVAILABLE IN
                               THE RE FORMAT
L29 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2004:17473 HCAPLUS
```

DOCUMENT NUMBER:

140:78506

TITLE:

Tetraazapentamethine derivatives and their manufacture and application for dyeing

keratinous fibers

INVENTOR(S):

Burgaud, Herve; David, Herve; Pereira, Rui; Belcour-Castro, Beatrice

PATENT ASSIGNEE(S):

SOURCE:

L'Oreal, Fr. Eur. Pat. Appl., 49 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

1

LANGUAGE:

French .

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1378544	A2	20040107	EP 2003-291678	200307
EP 1378544 R: AT, BE, C	H, DE, DK	ES, FR,	GB, GR, IT, LI, LU, NL MK, CY, AL, TR, BG, CZ	04 , SE, MC,
SK FR 2841901	A1		FR 2002-8494	200207 05
FR 2841901 WO 2004005407	B1 A2	20060203 20040115	< WO 2003-FR2090	200307
WO 2004005407 W: JP, US	А3	20040422	<	04
JP 2005532444	Т2	20051027	JP 2004-518878	200307 04
US 2005028300	Al	20050210	US 2004-489855	200409 24
PRIORITY APPLN. INFO.:			FR 2002-8494	A 200207 05
		:	< WO 2003-FR2090	W 200307 04

OTHER SOURCE(S): GI

MARPAT 140:78506

СН2СН2ОН Ме

СН2СН2ОН

AB Tetraazapentamethine derivs. having 2 heterocyclic rings such as I are manufd. for dyeing of keratinous fibers with colors that are as strong as colors formed by oxidative dyeing using dye precursors and that are completely removable by treatment of the colored fibers with a reducing agent. I is manuf. by reaction of EtOH with 1-(2-hydroxyethyl)-2-pyridone hydrazone in the presence of alc. oxidase and KH2PO4/K2PO4 at pH 7.

IT 1128-67-2 28219-35-4, 1-Methyl-2(1H)-pyridinone

1128-67-2 28219-35-4, 1-Methyl-2(1H)-pyridinone hydrazone 81067-78-9, 1,3-Dimethyl-2-imidazolidone hydrazone 461382-94-5, (6-Methoxy-2-methyl-4H-pyridazin-3-ylidene)hydrazine 642080-38-4, 1-(2-Hydroxyethyl)-2(1H)-pyridinone hydrazone 642080-39-5, 4-Methoxy-1-methyl-2(1H)-pyridinone hydrazone 642093-79-6, (2-Methyl-6-pyrrolidin-1-yl-4H-pyridazin-3-ylidene)hydrazine 642093-95-6, 1-(2-Hydroxyethyl)-2(1H)-pyridinone hydrazone hydrobromide RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; tetraazapentamethine derivs. of heterocyclic compds. for dyeing keratinous fibers)

RN 1128-67-2 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-35-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 81067-78-9 HCAPLUS

CN 2-Imidazolidinone, 1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 461382-94-5 HCAPLUS

CN 3(2H)-Pyridazinone, 6-methoxy-2-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 642080-38-4 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 642080-39-5 HCAPLUS

CN 2(1H)-Pyridinone, 4-methoxy-1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 642093-79-6 HCAPLUS

CN 3(2H)-Pyridazinone, 2-methyl-6-(1-pyrrolidinyl)-, hydrazone (9CI) (CA INDEX NAME)

RN 642093-95-6 HCAPLUS

CN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-, hydrazone, monohydrobromide (9CI) (CA INDEX NAME)

• HBr

```
IC
     ICM C09B050-10
          C07D213-77; C07D233-88; C07D237-22; C07D237-20; C07D401-14;
          C07D213-87
CC
     41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
     Photographic Sensitizers)
     Section cross-reference(s): 27, 28, 62
ST
     heterocyclic tetraazapentamethine deriv dye
     keratinous fiber; hair dye
     hydroxyethylpyridinylene methylformazanohydroxyethylpyridinium
     chloride manuf
IT
     Bleaching
        (decoloration of keratinous fibers dyed by
        tetraazapentamethine derivs. of heterocyclic compds.)
IT
        (indamine; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
IT
     Alcohols, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (precursors; decoloration of keratinous fibers
        dyed by tetraazapentamethine derivs. of heterocyclic
        compds.)
IT
     Heterocyclic compounds
     Hydrazones
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (precursors; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
IT
     Hair
        (tetraazapentamethine derivs. of heterocyclic compds. for
        dyeing keratinous fibers)
IT
     642093-93-4P
     RL: IMF (Industrial manufacture); PREP (Preparation)
        (precursor; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
IT
     642093-78-5P
                   642093-92-3P
                                   642093-94-5P
     RL: IMF (Industrial manufacture); RCT (Reactant); PREP
     (Preparation); RACT (Reactant or reagent)
        (precursor; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
IT
     109653-96-5P
                   642080-41-9P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered
     material use); PREP (Preparation); USES (Uses)
        (precursor; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
                                  67-56-1, Methanol, reactions
ΙT
     64-17-5, Ethanol, reactions
     100-51-6, Benzyl alcohol, reactions 100-52-7, Benzaldehyde,
                122-51-0, Triethyl orthoformate
     reactions
                                                   872-85-5,
     4-Pyridincarboxaldehyde 1128-67-2 28219-35-4,
     1-Methyl-2(1H)-pyridinone hydrazone 81067-78-9
     1,3-Dimethyl-2-imidazolidone hydrazone 461382-94-5,
     (6-Methoxy-2-methyl-4H-pyridazin-3-ylidene)hydrazine
     642080-38-4, 1-(2-Hydroxyethyl)-2(1H)-pyridinone hydrazone
     642080-39-5, 4-Methoxy-1-methyl-2(1H)-pyridinone hydrazone
     642093-79-6, (2-Methyl-6-pyrrolidin-1-yl-4H-pyridazin-3-
     ylidene)hydrazine 642093-80-9 642093-95-6,
     1-(2-Hydroxyethyl)-2(1H)-pyridinone hydrazone hydrobromide
     642093-96-7
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (precursor; tetraazapentamethine derivs. of heterocyclic compds.
        for dyeing keratinous fibers)
     642093-97-8P
     RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or
     engineered material use); PREP (Preparation); RACT (Reactant or
     reagent); USES (Uses)
        (tetraazapentamethine derivs. of heterocyclic compds. for
        dyeing keratinous fibers)
     99077-96-0P
                  99870-92-5P
                                642093-81-0P
                                                642093-82-1P
```

```
642093-83-2P
                642093-84-3P
                                642093-85-4P
                                               642093-86-5P
                642093-88-7P
642093-87-6P
                                642093-89-8P
                                               642093-90-1P
642093-91-2P
                642093-99-0P
                                642094-00-6P
                                               642094-01-7P
                642094-03-9P
642094-02-8P
                                               642094-05-1P
                               642094-04-0P
                642094-07-3P
                                               642094-09-5P
642094-06-2P
                               642094-08-4P
642094-10-8P
                642094-11-9P
                               642094-12-0P
                                               642094-13-1P
                642094-15-3P
642094-14-2P
                                               642094-17-5P
                               642094-16-4P
642094-18-6P
                642094-19-7P
                                642094-20-0P
                                               642094-21-1P
642094-22-2P
                642094-23-3P
                               642094-24-4P
                                               642094-25-5P
642094-26-6P
                642094-27-7P
                                               642094-29-9P
                               642094-28-8P
                642094-31-3P
642094-30-2P
                               642094-32-4P
                                               642094-33-5P
642094-34-6P
                642094-35-7P
                               642094-36-8P
                                               642094-37-9P
                               642094-40-4P
642094-38-0P
               642094-39-1P
                                               642094-41-5P
642094-42-6P
                642094-43-7P
                               642094-44-8P
                                               642094-45-9P
642094-46-0P
               642094-47-1P
                               642094-48-2P
                                               642094-49-3P
642094-50-6P
               642094-51-7P
                               642094-52-8P
                                               642094-53-9P
642094-54-0P
                642094-55-1P
                               642094-56-2P
                                               642094-57-3P
642094-58-4P
               642094-59-5P
                               642094-60-8P
                                               642094-61-9P
642094-62-0P
               642094-63-1P
                               642094-64-2P
                                               642094-65-3P
642094-66-4P
                642094-67-5P
                               642094-68-6P
                                               642094-69-7P
                               642094-72-2P
642094-70-0P
               642094-71-1P
                                               642094-73-3P
642094-74-4P
               642094-75-5P
                               642094-76-6P
                                               642094-77-7P
642094-78-8P
               642094-79-9P
                               642094-80-2P
                                               642094-81-3P
642094-82-4P
               642094-83-5P
                               642094-84-6P
                                               642094-85-7P
642094-86-8P ·
               642094-87-9P
                               642094-88-0P
                                               642094-89-1P
642094~90-4P
               642094-91-5P
                               642094-92-6P
                                               642094-93-7P
642094-94-8P
               642094-95-9P
                               642094-96-0P
                                               642094-97-1P
642094-98-2P
               642094-99-3P
                               642095-00-9P
                                               642095-01-0P
642095-02-1P
               642095-03-2P
                               642095-04-3P
                                               642095-05-4P
642095-06-5P
               642095-07-6P
                               642095-08-7P
                                               642095-09-8P
642095-10-1P
               642095-11-2P
                               642095-12-3P
                                               642095-13-4P
642095-14-5P
               642095-15-6P
                               642095-16-7P
                                               642095-17-8P
642095-18-9P
               642095-19-0P
                               642095-20-3P
                                               642095-21-4P
642095-22-5P
               642095-23-6P
                               642095-24-7P
                                               642095-25-8P
642095-26-9P
               642095-27-0P
                               642095-28-1P
                                               642095-29-2P
642095-30-5P
               642095-31-6P
                               642095-32-7P
                                               642095-33-8P
642095-34-9P
               642095-35-0P
                               642095-36-1P
                                               642095-37-2P
642095-38-3P
               642095-39-4P
                               642095-40-7P
                                               642095-41-8P
642095-42-9P
               642095-43-0P
                               642095-44-1P
                                               642095-45-2P
642095-46-3P
               642095-47-4P
                               642095-48-5P
                                               642095-49-6P
642095-50-9P
               642095-51-0P
                               642095-52-1P
                                               642095-53-2P
642095-54-3P
               642095-55-4P
                               642095-56-5P
                                               642095-57-6P
642095-58-7P
               642095-59-8P
                               642095-60-1P
                                               642095-61-2P
642095-62-3P
               642095-63-4P
                               642095-64-5P
                                               642095-65-6P
                               642095-69-0P
642095-66-7P
               642095-67-8P
                                               642095-70-3P
642095-71-4P
               642095-72-5P
                               642095-73-6P
                                               642095-74-7P
642095-75-8P
               642095-76-9P
                               642095-77-0P
                                               642095-78-1P
642095-79-2P
               642095-80-5P
                               642095-81-6P
                                               642095-82-7P
642095-83-8P
               642095-84-9P
                               642095-85-0P
                                               642095-86-1P
642095-87-2P
               642095-88-3P
                               642095-89-4P
                                               642095-90-7P
642095-91-8P
               642095-92-9P
                               642095-93-0P
                                               642095-94-1P
642095-95-2P
               642095-96-3P
                               642095-97-4P
                                               642095-98-5P
642095-99-6P
               642096-00-2P
                               642096-01-3P
                                               642096-02-4P
642096-03-5P
               642096-04-6P
                               642096-05-7P
                                               642096-06-8P
642096-07-9P
               642096-08-0P
                               642096-09-1P
                                               642096-10-4P
642096-11-5P
               642096-12-6P
                               642096-13-7P
                                               642096-14-8P
642096-15-9P
               642096-16-0P
                               642096-17-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
   (tetraazapentamethine derivs. of heterocyclic compds. for
   dyeing keratinous fibers)
```

L29 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN ACCESSION NUMBER: 2003:815250 HCAPLUS.

DOCUMENT NUMBER:

2003:815250 HCA 139:311937

TITLE:

2.3.4

Hair dye compositions

containing carboxylic acid

INVENTOR(S): Quinn, Francis Xavier; Giustiniani, Pascal

PATENT ASSIGNEE(S): L'Oreal, Fr.

SOURCE: Eur. Pat. Appl., 38 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent French

LANGUAGE: FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1352633	Al	20031015	EP 2003-290750	200303 25
			<	25
R: AT, BE, CH,	DE, DK		GB, GR, IT, LI, LU, NL, MK, CY, AL, TR, BG, CZ,	
FR 2838338	A1	20031017	FR 2002-4529	000004
			· · · <	200204 11
FR 2838338		20040528		
AT 319411	E	20060315	AT 2003-290750	200303 25
JP 2003300847	A2	20031021	JP 2003-107063	200304
			· <	10
BR 2003001299	A	20040817	BR 2003-1299	
			· <	200304 10
US 2003233713	A1	20031225	[*]	200304 11
			<	
PRIORITY APPLN. INFO.:			FR 2002-4529 A	200204 11
			< US 2002-375428P F	200204
			•	26

AB Hair dye compns. contain carboxylic acids complexed with a direct dye, and an alk. agent. The compns. are extremely useful for oxidative dye compns. Water is added to form the complex, and the complex was dried. To the dry material was added H2O2, and the dye powder was stable in the soln. of H2O2. The above suspension was added to p-toluenediamine 0.2, resorcinol 0.1, p-aminophenol 0.5, 2-methyl-5- β -hydroxyethylaminophenol 0.35, 2-methyl-5-aminophenol 0.3, oleic acid 2.7, momoethanolamine 0.6, cetylstearyl alc. 16, ethoxylated oleic cetyl alc. 3.5, sequestrant 0.8, 20.5% NH3 0.8, ammonium thiolactate 4.8, perfume qs and water qs to 100 q.

IT 612092-47-4D, complexes with carboxylic acids 612092-48-5D, complexes with carboxylic acids

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye compns. contg. carboxylic acid)

RN 612092-47-4 HCAPLUS

2(1H)-Pyridinone, 1-methyl-, hydrazone, dihydrochloride (9CI) CN INDEX NAME)

2 HCl-

612092-48-5 HCAPLUS RN 2(1H)-Pyridinone, 1-(2-hydroxyethyl)-, hydrazone, dihydrochloride CN (9CI) (CA INDEX NAME)

2 HCl

IC ICM A61K007-13 CC 62-3 (Essential Oils and Cosmetics) ST hair dye carboxylic acid cationic IT Azo dyes (cationic derivs.; hair dye compns. contg. carboxylic acid) Amines, biological studies RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (diamines, arom.; hair dye compns. contg. carboxylic acid)

IT (direct; hair dye compns. contg. carboxylic

IT **Hair** preparations (dyes, oxidative; hair dye compns.

contg. carboxylic acid) Hair preparations TT

(dyes; hair dye compns. contq. carboxylic acid)

IT Human

IT

(hair dye compns. contg. carboxylic acid)

Bisphenols RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hair dye compns. contg. carboxylic acid)

65-85-0D, Benzoic acid, complexes with direct dyes IT 81-25-4D, Cholic acid, complexes with direct dyes 83-44-3D, DeoxyCholic acid, complexes with direct dyes 95-55-6D, o-Aminophenol, derivs. 95-70-5, p-Toluenediamine 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 123-30-8D, p-Aminophenol, derivs. 474-25-9D, Chenodeoxycholic acid, complexes with direct dyes 591-27-5D, m-Aminophenol, derivs. 621-82-9D, Cinnamic acid, 2835-95-2, complexes with direct dyes 2-Methyl-5-aminophenol 25620-59-1D, Aminoanthraquinone, cationic derįvs. 30569-52-9D, complexes with carboxylic acids

```
46921-92-0D, complexes with carboxylic acids 55302-96-0 77061-58-6D, complexes with carboxylic acids 97404-02-9D,
      complexes with carboxylic acids 178822-03-2D, complexes with carboxylic acids 375348-42-8D, complexes with carboxylic acids
      612092-47-4D, complexes with carboxylic acids
      612092-48-5D, complexes with carboxylic acids
      RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
          (hair dye compns. contg. carboxylic acid)
IT
      7722-84-1, Hydrogen peroxide, biological studies
      RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study);
      RACT (Reactant or reagent); USES (Uses)
          (hair dye compns. contg. carboxylic acid)
REFERENCE COUNT:
                      . 3
                                      THERE ARE 3 CITED REFERENCES AVAILABLE FOR
                                       THIS RECORD. ALL CITATIONS AVAILABLE IN
                                      THE RE FORMAT
L29 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                               2003:372764 HCAPLUS
DOCUMENT NUMBER:
                               138:373844
TITLE:
                               Hair dyes containing
                               derivatives of 2-benzothiazolinone-hydrazone and
                               p-quinone
INVENTOR(S):
                               Pasquier, Cecile; Umbricht, Gisela;
                              Buclin-Charriere, Veronique; Oberson, Sylviane;
                               Braun, Hans-Juergen
                               Wella AG, Germany
PATENT ASSIGNEE(S):
SOURCE:
                              Ger. Offen., 8 pp.
                               CODEN: GWXXBX
DOCUMENT TYPE:
                               Patent
LANGUAGE:
                               German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
      PATENT NO.
                              KIND
                                       DATE
                                                    APPLICATION NO.
                                                                                   DATE
      DE 10155907
                                       20030515
                                                      DE 2001-10155907
                               A1
                                                                                   200111
                                                                                    14
                                                             c--
      WO 2003042199
                               A1
                                       20030522
                                                      WO 2002-EP9381
                                                                                   200208
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
               NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
                TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR,
               BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
      BR 2002006394
                                       20040203
                                                      BR 2002-6394
                                                                                   200208
      EP 1448540
                               A1
                                       20040825
                                                      EP 2002-772186
                                                                                   200208
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
      JP 2005509034
                                       20050407
                                                   JP 2003-544035
```

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

200208 22

US 2004060124 A1 20040401 US 2003-250847

B2

200307

14

• ...

20060704

US 7070625 PRIORITY APPLN. INFO.:

DE 2001-10155907 A

200111 14

<--

WO 2002-EP9381

200208 22

OTHER SOURCE(S): MARPAT 138:373844

The invention concerns hair dyes that contain derivs. of 2-benzothiazolinone-hydrazone and p-quinone; other dyes can be added to the formulations. Thus a hair dye included (g): Plantaren 2000 4.00; EDTA disodium salt hydrate 0.20; ethanol 5.00; 3-methyl-2-benzothiazolinone-hydrazone hydrochloride hydrate 0.59; 4,5-dimethoxy-1,2-benzoquinone 0.41; ethanol 20; water to 100.

IT 4338-98-1, 3-Methyl-2-benzothiazolinone-hydrazone hydrochloride 524684-56-8 524684-57-9

524684-58-0

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hair dyes contg. derivs. of

2-benzothiazolinone-hydrazone and p-quinone)

RN 4338-98-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-, hydrazone, monohydrochloride (9CI) (CA INDEX NAME)

● HCl

RN 524684-56-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hydrazone, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

RN 524684-57-9 HCAPLUS

●x HCl

RN 524684-58-0 HCAPLUS
CN 2(3H)-Benzothiazolone, 3-(phenylmethyl)-, hydrazone, hydrochloride
(9CI) (CA INDEX NAME)

$$\begin{array}{c|c} S & N-NH_2 \\ \hline & N \\ CH_2-Ph \end{array}$$

●x HCl

ICM A61K007-13

TC

62-4 (Essential Oils and Cosmetics) ST hair dye benzothiazolinone hydrazone para quinone deriv IT **Hair** preparations (dyes; hair dyes contg. derivs. of 2-benzothiazolinone-hydrazone and p-quinone) IT (hair dyes contg. derivs. of 2-benzothiazolinone-hydrazone and p-quinone) IT 84-58-2, 2,3-Dichloro-5,6-dicyano-1,4-benzoquinone 87-88-7, 2,5-Dichloro-3,6-dihydroxy-1,4-benzoquinone 85-23-4 106-51-4D, p-Quinone, derivs. 118-75-2, 2,3,5,6-Tetrachloro-1,4benzoquinone, biological studies 137-18-8, 2,5-Dimethyl-1,4-319-89-1, 2,3,5,6-Tetrahydroxy-1,4-benzoquinone benzoquinone 363-03-1, 2-Phenyl-1,4-benzoquinone 367-28-2, 2-Fluoro-1,4benzoquinone 475-38-7, 5,8-Dihydroxy-1,4-naphthalene-dione 484-89-9 488-48-2, 2,3,5,6-Tetrabromo-1,4-benzoquinone 527-17-3, 2,3,5,6-Tetramethyl-1,4-benzoquinone 527-21-9, 2,3,5,6-Tetrafluoro-1,4-benzoquinone 527-61-7, 2,6-Dimethyl-1,4-benzoquinone 530-55-2, 2,6-Dimethoxy-1,4-548-59-4, 2,5-Dihydroxy-3,6-diphenyl-1,4-benzoquinone benzoquinone 553-97-9, 2-Methyl-1,4-benzoquinone 561-20-6, Cacotheline 605-94-7, 2,3-Dimethoxy-5-methyl-1,4-benzoquinone 2-Methoxy-5-methyl-1,4-benzoquinone 615-21-4D, 2-Benzothiazolinone-hydrazone, derivs. 615-93-0, 2,5-Dichloro-1,4-benzoquinone 615-94-1, 2,5-Dihydroxy-1,4benzoquinone 695-99-8, 2-Chloro-1,4-benzoquinone 697-91-6, 2,6-Dichloro-1,4-benzoquinone 719-22-2, 2,6-Di-tert-butyl-1,4benzoquinone 844-51-9, 2,5-Diphenyl-1,4-benzoquinone 1123-64-4, 1633-14-3, 2,5-Dibromo-1,4-2-Chloro-6-methyl-1,4-benzoquinone 2207-58-1, 2,5-Dihydroxy-3-methyl-1,4-benzoquinone benzoguinone 2460-77-7, 2,5-Di-tert-butyl-1,4-benzoquinone 2435-53-2 2880-58-2, 2-Methoxy-1,4-benzoquinone 3117-03-1, 2,5-Dimethoxy-1,4-benzoquinone 3383-21-9 3602-55-9, 2-tert-Butyl-1,4-benzoquinone 3908-48-3 3958-82-5, 2-Bromo-1, 4-benzoquinone 4008-05-3 4338-98-1, 3-Methyl-2-benzothiazolinone-hydrazone hydrochloride

```
4655-79-2 5557-53-9 7461-66-7 13070-25-2, 2-Bromo-5-methyl-1,4-
      benzoquinone 18916-57-9 20342-64-7, 1H-Indole-4,7-dione
      20958-05-8 21086-65-7, 4,5-Dimethoxy-1,2-benzoquinone 21505-19-1, 1,3-Benzodioxole-5,6-dione 22895-04-1 28293-39-2,
      2,5-Dibromo-3,6-diphenyl-1,4-behzoquinone 29096-93-3 31679-92-2,
      2-Amino-5-methyl-1,4-benzoquinone 31776-35-9, 2,6-Dimethoxy-3-
     methyl-1,4-benzoquinone 46010-98-4, 2,5-Dichloro-3,6-dimethyl-1,4-benzoquinone 50827-57-1, 2-Hydroxymethyl-6-methoxy-1,4-benzoquinone 53684-60-9, 1-Naphthalenesulfonic acid,
      3,4-dihydro-3,4-dioxo-, ammonium salt 71849-97-3
      524684-56-8 524684-57-9 524684-58-0
      524684-59-1
      RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
          (hair dyes contq. derivs. of
         2-benzothiazolinone-hydrazone and p-quinone)
L29 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:736076 HCAPLUS
DOCUMENT NUMBER:
                              137:252685
TITLE:
                             Novel dyeing compositions for the dyeing
                             of keratin fibers comprising
                             5-membered heterocyclic hydrazone compounds as
                             an oxidation base
INVENTOR(S):
                             Vidal, Laurent; David, Herve
                             L'Oreal, Fr.
PCT Int. Appl., 30 pp.
PATENT ASSIGNEE(S):
SOURCE:
                             CODEN: PIXXD2
DOCUMENT TYPE:
                              Patent
LANGUAGE:
                              French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                                     DATE
      PATENT NO.
                             KIND
                                                   APPLICATION NO.
                                      -----
                              ----
     WO 2002074268
                                      20020926
                                                    WO 2002-FR857
                                                                                 200203
                                      20040122
     WO 2002074268
                              A3
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
               GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
               LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
          NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI,
               FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG,
               CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      FR 2822062
                              A1
                                      20020920 FR 2001-3538
                                                                                 200103
                                                                                 15
                                                           <--
      FR 2822062
                              B1
                                      20051202
     AU 2002253222
                              A1
                                      20021003
                                                    AU 2002-253222
                                                                                 200203
                                                                                 11
PRIORITY APPLN. INFO.:
                                                    FR 2001-3538
                                                                                 200103
                                                                                 15
                                                           <--
                                                     WO 2002-FR857
                                                                                 200203
```

```
<--
OTHER SOURCE(S):
                         MARPAT 137:252685
     The invention relates to a novel compn. that is used for the oxidn.
     dyeing of keratin fibers, in particular human
     hair, comprising at least one 5-membered heterocyclic hydrazone-type
     compd. as an oxidn. base and at least one coupling agent. The
     invention also relates to the dyeing method using same and to novel
     5-membered heterocyclic hydrazone compds. Thus,
     (1,3-dimethyl-1,3-dihydro-imidazol-2-ylidene)-hydrazone (I) was
     prepd. by the reaction of hydrazine hydrate and 2-methylsufonyl-1,3-
     dimethyl-imidazolinium methosulfate (prepn. given). Formulation of
     a hair dye contg. I 10-3 mole, and water and
     excipients q.s. 100 g is disclosed.
     461388-49-8P
     RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
RN
     461388-49-8 HCAPLUS
CN
     2H-Imidazol-2-one, 1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA
     INDEX NAME)
 Me
      N-NH2
IC
     ICM A61K007-13
     ICS C09B026-02; C07D233-88
     62-3 (Essential Oils and Cosmetics)
CC
     Section cross-reference(s): 27
ST
     hair dye heterocyclic hydrazone oxidn base
     Hair preparations
IT
        (dyes, oxidative; hair dye compns.
        comprising heterocyclic hydrazone compds. as oxidn. base)
IT
     461388-49-8P
     RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
IT
     74-88-4, Methyl iodide, reactions
                                        77-78-1, Dimethyl sulfate
     302-01-2, Hydrazine, reactions
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
IT
     60-56-0P
               14486-52-3P
                              71691-71-9P
                                            461388-50-1P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
     RACT (Reactant or reagent)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
L29 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2002:736075 HCAPLUS
DOCUMENT NUMBER:
                         137:252684
TITLE:
                         Novel dyeing compositions for the dyeing
                         of keratin fibers comprising
                         6-membered heterocyclic hydrazone compounds as
                         an oxidation base
INVENTOR(S):
                         Vidal, Laurent; David, Herve
PATENT ASSIGNEE(S):
                         L'Oreal, Fr.
```

```
PCT Int. Appl., 37 pp.
SOURCE:
                           CODEN: PIXXD2
DOCUMENT TYPE:
                           Patent
LANGUAGE:
                          French
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                          KIND
                                  DATE
                                               APPLICATION NO.
                                                                        DATE
     -----
                                               ------
     WQ 2002074267
                                  20020926
                                               WO 2002-FR856
                           A1
                                                                        200203
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
             NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
              CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
             SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
     FR 2822063
                                  20020920
                                               FR 2001-3539
                                                                        200103
     FR 2822063
                           B1
                                  20051202
PRIORITY APPLN. INFO.:
                                               FR 2001-3539
                                                                        200103
                                                                        15
OTHER SOURCE(S):
                          MARPAT 137:252684
     The invention relates to a novel compn. that is used for the oxidn.
     dyeing of keratin fibers, in particular human
     hair, comprising at least one particular hydrazone-type compd. as an
     oxidn. base and at least one coupling agent. The invention also
     relates to the method using same and to novel 6-membered
     heterocyclic hydrazone compds. Thus, (6-methoxy-2-methyl-2H-pyridazin-3-ylidene)-hydrazone dihydrochloride (I) was prepd. by the
     reaction of N-acetyl-(6-methoxy-2-methyl-2H-pyridazin-3-ylidene)-
     hydrazone (prepn. given) with hydrochloric acid. Formulation of a
     hair dye contg. I 5x10-3, 3-amino-2-chloro-6-
     methyl-phenol hydrochloride 5x10-3 mole, water and excipients q.s.
     100 g is disclosed.
TΤ
     461382-96-7 461382-97-8
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
```

(hair dye compns. comprising heterocyclic

3(2H)-Pyridazinone, 2-methyl-6-(1-pyrrolidinyl)-, hydrazone,

hydrazone compds. as oxidn. base)

dihydrochloride (9CI) (CA INDEX NAME)

461382-96-7 HCAPLUS

RN

CN

2 HCl

RN 461382-97-8 HCAPLUS 3(2H)-Pyridazinone, 2-methyl-6-phenyl-, hydrazone, dihydrochloride CN (9CI) (CA INDEX NAME)

●2 HCl

CN

IT 461382-95-6P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (hair dye compns. comprising heterocyclic hydrazone compds. as oxidn. base)

RN 461382-95-6 HCAPLUS

3(2H)-Pyridazinone, 6-methoxy-2-methyl-, hydrazone, dihydrochloride (9CI) (CA INDEX NAME)

2 HCl

RN

IT 461382-94-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (hair dye compns. comprising heterocyclic hydrazone compds. as oxidn. base) 461382-94-5 HCAPLUS

```
CN 3(2H)-Pyridazinone, 6-methoxy-2-methyl-, hydrazone (9CI) (CA INDEX NAME)
```

```
H2N
           Me
    OMe
     ICM A61K007-13
     62-3 (Essential Oils and Cosmetics)
CC
     Section cross-reference(s): 27
ST
     hair dye heterocyclic hydrazone oxidn base
IT
     Hair preparations
        (dyes, oxidative; hair dye compns.
        comprising heterocyclic hydrazone compds. as oxidn. base)
IT
     461382-96-7 461382-97-8
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
IT
     461382-90-1P 461382-95-6P
     RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL
     (Biological study); PREP (Preparation); USES (Uses)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
IT
     77-78-1, Dimethyl sulfate
                                1068-57-1, Acetylhydrazine
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
TТ
     1722-10-7P, 3-Chloro-6-methoxypyridazine
                                                461382-92-3P
     461382-93-4P 461382-94-5P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
     RACT (Reactant 'or reagent)
        (hair dye compns. comprising heterocyclic
        hydrazone compds. as oxidn. base)
REFERENCE COUNT:
                         3
                               THERE ARE 3 CITED REFERENCES AVAILABLE FOR
                               THIS RECORD. ALL CITATIONS AVAILABLE IN
                               THE RE FORMAT
L29 ANSWER 13 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                         2002:220343 HCAPLUS
DOCUMENT NUMBER:
                         136:267891
TITLE:
                         Hair dyes containing
                         benzoxadiazole, benzothiadiazole and
                         benzo-selenadiazole derivatives
INVENTOR(S):
                         Pasquier, Cecile; Charriere, Veronique; Braun,
                         Hans-Juergen
PATENT ASSIGNEE(S):
                         Wella Aktiengesellschaft, Germany
SOURCE:
                         PCT Int. Appl., 44 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         German
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022093 -	A1	20020321	WO 2001-EP7494	
٠.				200106
				29

												<					
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA	, CH,
																	, GD,
																	, KZ,
																	, MZ,
																	, MZ,
													SK,	эц,	10,	114	, IK,
		5.1						UZ,					***	G1.1			011
		RW:															, CH,
																	, SE,
				BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	ΝE,	SN	, TD,
			TG														
D	E 1	10045	600			A1		2002	0404	1	DE 2	000-	1004	5600			
																	200009
																	15
												<					
A	U 2	20010	8192	24		A5		2002	326	1	AU 2	001-	8192	4			
																	200106
																	29
												<					
B	R 2	20010	072	15		Α		2002	709	,	BR 2	001-	7215				
2	• •					••		2002			J.		. 213				200106
																	29
																	29
17	n 1	2200		-		7.1		2002	1777	,	en 2	<	0604	20			
E.	ן פ	13282	44	٠.		A1		2003	1/23		EP 2	001-	9604.	29			200106
										•							200106
																	29 .
		_		'	~							<				~-	
		R:												LU,	ΝL,	SE	, MC,
								FI,									
J	P 2	20045	0838	39		T2		2004	0318		JP 2	002-	52634	46			
																	200106
				•													29
												<					
U	S 2	20030	7023	39 💉		A1	:	20030)417	Ţ	JS 2	002-3	1101:	16			
																	200204
				٠.													05
												<					
U:	s e	7734	63	`		B2	:	2004	810								^
PRIORI'	ΤY	APPL	N.]	NFO.	. :					1	DE 20	000-	1004	5600	1	Ą	
																	200009
				•													15
												<					
										ī	NO 21	001-1	EP74	94	ī	N.	
													,	•			200106
																	29
												<				•	
												<					

GI

AB The invention relates to an agent for coloring fibers (A) which is produced by mixing two components (A1) and (A2) and is characterized in that the component (A1) contains at least one compd. of formula (I), wherein X represents a halogen atom, a methoxy group or an ethoxy group; Y represents an oxygen atom, a sulfuric atom or a selenium atom; and R1 and R2 can be identical or different and

represent independently from each other hydrogen, a halogen atom, an (C1-C4) alkyl group, an (C1-C4) alkyl group substituted by a halogen atom, an (C1-C4) alkoxy group, a nitro group, an acetamido group or a NRaRb group, whereby the radicals Ra and Rb can be identical or different and represent independently from each other hydrogen, an (C1-C4) alkyl group, an optionally substituted carbocycle or an (C1-C4) alkane carbonyl group, or Ra and Rb form, together with the nitrogen atom, a heterocyclic (C3-C6) group; and the component (A2) contains at least one compd. from the group comprising amines, aminonitrobenzenes and phenoles. The invention also relates to a method for coloring hair by using the agent and a multiple component kit. Thus a hair dye was prepd. Component Al contained (g): 7-chloro-4-nitro-2,1,3-benzoxadiazole 0.5; ethanol 5.0; decylpolyglycoside aq. soln. (Plantaren 2000) 4.0; EDTA sodium salt hydrate 0.2; water to 100. Components A2 was 0.153 g ethanol amine.

IT 4338-98-1

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses) (hair dyes contg. benzoxadiazole, benzothiadiazole and benzo-selenadiazole derivs.)

RN 4338-98-1 HCAPLUS

• HCl

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics) Section cross-reference(s): 41

ST hair dye benzoxadiazole benzothiadiazole benzoselenadiazole deriv amine phenol

IT Hair preparations

(dyes; hair dyes contg.

benzoxadiazole, benzothiadiazole and benzo-selenadiazole derivs.) IT 95-55-6, 2-Aminophenol 99-98-9, 4-Dimethylaminoaniline 4-Methylphenol, biological studies 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 108-95-2, Phenol, biological studies 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 141-43-5, Ethanol amine, biological studies 525-64-4, 2,7-Diamino fluorene 591-27-5, 3-Aminophenol 1198-27-2, 2-Naphthalenol, 1-amino-,hydrochloride 1953-54-4, 5-Hydroxyindole 2207 1-amino-, hydrochloride 2274-63-7 2835-95-2, 5-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3240-72-0, 5,6-Diamino-2,4dihydroxypyrimidine 3523-28-2 **4338-98-1** 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6369-59-1, 1,4-Benzenediamine, 2-methyl-, sulfate 10199-89-0, 7-Chloro-4-nitro-2,1,3benzoxadiazole 15639-38-0 15639-43-7 15944-78-2 16461-98-6, 1H-Pyrazole-3,4-diamine 18333-73-8 18392-74-0 18392-77-3 18392-78-4, 4-Bromo-5-methyl-7-nitro-2,1,3benzothiadiazole 18453-42-4 19951-28-1 19951-33-8 20718-28-9 23920-15-2 20718-47-2 20718-48-3 26455-21-0 26460-78-6 29270-56-2, 4-Fluoro-7-nitro-2,1,3-benzoxadiazole 29705-39-3 32014-70-3 33229-34-4 35128-56-4 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 49647-58-7, 2,4,5,6-

```
52120-98-6 56932-44-6
     Tetraaminopyrimidine sulfate
                                                                62625-14-3
     65235-31-6, 4-[(2-Hydroxyethyl)amino]-3-nitrophenol 66170-46-5,
     1,4-Benzenediamine, 2-methyl-, hydrochloride 68579-76-0 69825-83-8 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene
     70733-34-5 71005-35-1 81432-10-2 81892-72-0,
1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-
     hydroxyethyl)aminolanisole 89365-28-6 89365-31-1 89365-32-2
                  90841-38-6 91267-92-4 93841-24-8,
     89793-88-4
     1,4-Diamino-2-(2-hydroxyethyl)benzene
                                              93841-25-9
                                                             94158-13-1
     95576-89-9 100418-33-5, 4-[(2-Hydroxyethyl)amino]-3-nitro-1-
     methylbenzene .104516-93-0 125292-42-4
                                                  131202-67-0
     131202-71-6
                   131311-66-5
                                 131657-78-8, 2-Chloro-6-ethylamino-4-
                   132885-85-9
                                  155601-16-4
                                                 155601-17-5,
     nitrophenol
     4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
                                                    157469-54-0
     164919-03-3 227199-11-3 257932-06-2 257932-07-3 329320-36-7,
     1,4-Diamino-2-(1-hydroxyethyl)benzene 364343-79-3
                                                             404839-62-9
     404839-63-0 404839-64-1
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (hair dyes contg. benzoxadiazole,
        benzothiadiazole and benzo-selenadiazole derivs.)
                                 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
REFERENCE COUNT:
                                 THIS RECORD. ALL CITATIONS AVAILABLE IN
                                 THE RE FORMAT
L29 ANSWER 14 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:
                          1975:607580 HCAPLUS
DOCUMENT NUMBER:
                          83:207580
                          What is the meaning of the aldehyde
TITLE:
                          determination in photographic gelatin
                          Pouradier, J.; Colliere, G.
AUTHOR(S):
                          Lab. Rech., Soc. Kodak-Pathe, Vincennes, Fr. Journal of Photographic Science (1975
CORPORATE SOURCE:
SOURCE:
                          ), 23(3), 106-12
                          CODEN: JPTSAF; ISSN: 0022-3638
```

DOCUMENT TYPE: LANGUAGE: Journal English

AB Nucleic acids, oses, polyoses, lipids, and amino acids in gelatin simulate the action of aldehydes with the reagents thiobarbituric acid and 3-methyl-2-benzothiazolone hydrazone [1128-67-2] used to det. aldehydes in photographic gelatin, thus introducing major errors. These tests should serve only as control operations rather than actual analyses.

IT 1128-67-2P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (prepn. of)

RN 1128-67-2 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

CC 41-2 (Leather and Related Materials)
 Section cross-reference(s): 74, 80

IT Gelatins, analysis

RL: ANST (Analytical study)

(aldehyde detn. in photographic, aldehyde
precursor effect on)

IT Aldehydes, analysis

RL: ANT (Analyte); ANST (Analytical study) (detn. of, in photographic gelatin, aldehyde precursor effect on)

IT Photographic emulsions

(gelatins for, aldehyde detn. in, aldehyde

precursor effect on) 67-52-7DP, 2,4,6(1H,3H,5H)-Pyrimidinetrione, thio derivs. IT

1128-67-2P

RL: IMF (Industrial manufacture); PREP (Preparation) (prepn. of)

L29 ANSWER 15 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1975:160106 HCAPLUS

DOCUMENT NUMBER:

82:160106

TITLE:

Oxidative hair dye

INVENTOR(S):

Saygin, Ferdi

PATENT ASSIGNEE(S):

Henkel und Cie. G.m.b.H.

SOURCE:

Ger. Offen., 11 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2334738	A1	19750130	DE 1973-2334738	
				197307 09
			<	
PRIORITY APPLN. INFO.:			DE 1973-2334738 A	107207
				197307 09

GI For diagram(s), see printed CA Issue.

Forty-four pairs of I (R = H, Me; R1 = H, C1, Me, OMe, NMe2) as couplers and several N bases as developers are tabulated. They are used by adding 0.01 mole of each to an emulsion of C12-18 fatty alc. 10, C12-18 Na alkyl sulfate 10, and water 75 wt. parts, adding NH3 to pH 9.5, the dye being developed by 1% H2O2 [7722-84-1] in 30 min. A wide range of colors can be produced by emulsions, creams, or gels.

IT 1128-67-2 28219-35-4

RL: BIOL (Biological study)

(hair dye developer)

RN 1128-67-2 HCAPLUS

2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

28219-35-4 HCAPLUS RN

2(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME) CN

```
A61K
IC
     62-3 (Essential Oils and Cosmetics)
CC
ST
     hair dye quinolone
IT
     Hair
        (dyes for, contg. quinazolinone couplers)
     1677-44-7 1677-46-9 1900-41-0 14300-45-9 31136-95-5 54675-24-0 55198-96-4
                                                        31136-93-3
IT
     RL: BIOL (Biological study)
        (hair dye coupler)
     95-70-5 99-98-9 1128-67-2
                                  5307-02-8 13558-27-5
     28219-35-4 55198-95-3
     RL: BIOL (Biological study)
        (hair dye developer)
IT
     7722-84-1, biological studies
     RL: BIOL (Biological study)
        (hair dyes contg.)
L29 ANSWER 16 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN
```

ACCESSION NUMBER:

1973:99042 HCAPLUS

DOCUMENT NUMBER:

78:99042

TITLE:

Diazamerocyanine dyes in hair

-coloring media

INVENTOR(S):

Lang, Gerard; Bugaut, Andree

PATENT ASSIGNEE(S):

SOURCE:

Oreal S. A. Ger. Offen., 50 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
			,	
DE 2227214	A	19721214	DE 1972-2227214	
				197206
			31	05
FR 2140205	A1	19730112	· < FR 1972-19934	
FR 2140205	AI	19/30112	FR 1972-19934	197206
				02
			<	
FR 2140205		19771223		
CH 560539	A	19750415	CH 1972-8234	
				197206
			_	02
CA 1021324	A1	19771122	. < CA 1972-143789	
CA 1021324	NI.	19//1122	CA 1972-143709	197206
				02
			<	
IT 982408	Α	19741021	IT 1972-68758	
				197206
				03
an 1060560	_		<	
GB 1360562	A	19740717	GB 1972-26204	197206
			•	05
			<	03
US 3985499	A	19761012	US 1975-554701	
			•	197503
			`	03
			· <	
GB 1491930	Α	19771116	GB 1975-35786	
			,	197508

					29
			<		
US 4151162	Α	19790424	US 1976-707769		
			•		197607
•			<i>j</i> .		22
•			<		~~
G3 1020463 :	3.0	10771100			
CA 1020463	A2	19771108	CA 1976-258919		
					197608
					11
			<		
PRIORITY APPLN. INFO.:			LU 1971-63287	Α	
			•		197106
					04
			•		0-2
			<	_	
			LU 1972-64565	Α	
					197201
					06
			<		
			CA 1972-143789	A3	
					197206
					02
					02
			<	_	
			GB 1972-26204	Α	
					197206
			•		05
			· <		
			US 1972-259689	A2	
			00.1972 233003	• • • •	197206
					05
			<		
			LU 1974-70835	Α	
			•		197408
					30
			s' <		
			US 1975-554701	A3	
			22 12/2 224/01	A)	197503
					03
			` <		

AB Diazamerocyanine dyes I (R = H, RR1 = CH:CHCH:CH, R1 = H, Me, Ph, R2 = Me, Ph, R3 = substituted 4-imino- or 4-oxo-2,5-cyclohexadien-1-ylidene residue, 1-phenyl-3-methyl-5-oxo-2-pyrazolin-4-ylidene, Q = S, NMe and II and/or their acid salts were prepd. and used in hair waving lotions contg. cosmetic resins for dyeing hair at pH 3-8. Thus, 4,3-Me(HO)C6H3NH2 and NH4OH in EtOH was added to a soln. of 3-methyl-2-benzothiazolinone hydrazone, stirred, and (NH4)2S2O8 was added to give diazamerocyanine dye (III) [39219-05-1]. The other I and II were similarly prepd. hair waving lotions were prepd. using I and II.

IT 28219-31-0

RL: USES (Uses)

(reaction with 6-hydroxybenzomorpholine)

RN 28219-31-0 HCAPLUS

CN 3H-Indazol-3-one, 1,2-dihydro-1,2-dimethyl-, hydrazone, hydrochloride (9CI) (CA INDEX NAME)

●x HCl

IT 1128-67-2

RL: USES (Uses)

(reaction with aminophenols and related compds.)

RN 1128-67-2 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

IT 41338-96-9 41339-01-9 41339-03-1

RL: USES (Uses)

(reaction with hydroxybenzomorpholine)

RN 41338-96-9 HCAPLUS

●2 HCl

RN 41339-01-9 HCAPLUS

CN 2(3H)-Thiazolone, 3,4-diphenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 41339-03-1 HCAPLUS

CN 2H-Benzimidazol-2-one, 1,3-dihydro-1,3-dimethyl-, hydrazone, dihydrochloride (9CI) (CA INDEX NAME)

```
Мe
      N-NH2
      Me
```

●2 HCl

IC A61K CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers) diazamerocyanine hair dye; merocyanine hair dye; cyanine hair dye IT Dyes, cyanine (diazamerocyanine, hair) IT (dyes for, diazamerocyanine and azo derivs. of quaternized heterocycle as) IT Dyeing (of hair, compns. for) IT. 28219-31-0 RL: USES (Uses) (reaction with 6-hydroxybenzomorpholine) IT 1128-67-2 RL: USES (Uses) (reaction with aminophenols and related compds.) IT. 41338-96-9 41338-99-2 41339-01-9 41339-03-1 RL: USES (Uses)

L29 ANSWER 17 OF 17 HCAPLUS COPYRIGHT 2006 ACS on STN

(reaction with hydroxybenzomorpholine)

ACCESSION NUMBER: 1970:124993 HCAPLUS

DOCUMENT NUMBER: 72:124993

TITLE:

Oxidative dyes for hair INVENTOR(S): Maul, Rudolf; Rehberg, Rolf

Therachemie Chemisch-Therapeutische G.m.b.H. PATENT ASSIGNEE(S):

SOURCE: Ger. Offen., 25 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1922400	A	19691204	DE 1969-1922400	196905 02
DE 1922400 AT 282072	C3 B	19781123 19700610	< : AT 1968-5206	196805 30
FR 1599968	A	19700720	< FR 1968-1599968	196812 24
NL 6906270	A	19691202	< NL 1969-6270	_,

196904

```
23
                         . В
     NL 162558
                                 19800115
     NL 162558
                          С
                                 19800616
     DK 122006
                          В
                                 19720103
                                              DK 1969-2231
                                                                      196904
                                                                      23
     US 3634013
                                 19720111
                                              US 1969-827924
                                                                      196905
                                                                      26
     BE 733731
                                 19691128
                                              BE 1969-733731
                           Α
                                                                      196905
                                                   <--
     GB 1219035
                           Α
                                 19710113
                                              GB 1969-1219035
                                                                      196905
                                                                      29
                                                   <--
                                 19720630
     CH 524369
                           Α
                                              CH 1969-524369
                                                                      196905
                                                                      29
PRIORITY APPLN. INFO.:
                                              AT 1968-5206
                                                                      196805
                                                                      30
AB
     Hair dye creams are prepd. from heterocyclic
     hydrazones, appropriate couplers and H2O2. For example, 2 parts
     N-methyl-2-benzothiazolone hydrazone and 1.54 parts
     2,4-(H2N)2C6H3OMe were added to an emulsion of fatty alc. 10, fatty
     alc. sulfate 10 and H2O 70 parts (pH 9.5) and treated with 1 part
     H202 to give a cream. Grey hairs were dyed with the cream at 20° for 30 min in dark brown red shade. Creams
     similarly prepd. were (hydrozone, coupler and shade of dyed
     hairs given): N-methyl-2-thiazolidone hydrazone,
     1,5(HO)2C10H6 (I), brown red; 1,2-dimethyl-3-indazolone
     hydrazone-HCl (II), I, blue-violet; II, resorcinol, grey-brown.
IT
     1128-67-2 13545-99-8 20065-04-7
     20065-05-8 20065-06-9 21337-45-1
     21817-85-6 27256-92-4 28218-86-2
     28218-89-5 28218-90-8 28218-93-1
     28218-95-3 28218-96-4 28218-97-5
     28218-98-6 28218-99-7 28219-00-3
     28219-01-4 28219-02-5 28219-03-6
     28219-04-7 28219-05-8 28219-06-9
     28219-07-0 28219-08-1 28219-09-2
     28219-10-5 28219-11-6 28219-30-9
     28219-31-0 28219-33-2 28219-35-4
     28219-36-5 28219-38-7 28219-39-8
     28219-40-1 28219-41-2 28219-42-3
     28381-00-2
     RL: BIOL (Biological study)
     (dyes, for hair creams)
RN
```

2(3H)-Benzothiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

CN

RN 13545-99-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-methoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-04-7 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-chloro-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-05-8 HCAPLUS

CN 2(3H)-Benzothiazolone, 6-ethoxy-3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 20065-06-9 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-methyl-6-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 21337-45-1 HCAPLUS ·

CN 2H-Benzimidazol-2-one, 1,3-dihydro-1,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 21817-85-6 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-4-phenyl-, hydrazone (9CI) (CA INDEX NAME)

RN 27256-92-4 HCAPLUS

CN 4(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-86-2 HCAPLUS

CN 4(1H)-Quinolinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-89-5 HCAPLUS

RN 28218-90-8 HCAPLUS

CN Acetamide, N-(2-hydrazono-2,3-dihydro-3-methyl-6-benzothiazolyl)(9CI) (CA INDEX NAME)

RN 28218-93-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 3-ethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28218-95-3 HCAPLUS

RN 28218-96-4 HCAPLUS

CN 2(3H)-Thiazolone, 3-(4-methoxyphenyl)-4-methyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OMe} \\ \\ \text{H}_2\text{N}-\text{N} \\ \\ \text{S} \end{array} \begin{array}{c} \text{Me} \\ \\ \end{array}$$

RN

28218-97-5 HCAPLUS

CN 4-Thiazolin-2-one, 4-methyl-3-(p-nitrophenyl)-, hydrazone (7CI, 8CI) (CA INDEX NAME)

RN 28218-98-6 HCAPLUS CN 4(1H)-Quinolone, 2-(diethylamino)-1-ethyl-, hydrazone (6CI, 8CI) (CA INDEX NAME)

RN 28218-99-7 HCAPLUS CN 4(1H)-Pyridone, 3,5-dibromo-1-methyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-00-3 HCAPLUS CN 4(1H)-Pyridone, 2-(ethylamino)-1-methyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-01-4 HCAPLUS CN 2H-Indol-2-one, 1-ethyl-1,3-dihydro-3,3-dimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-02-5 HCAPLUS

CN 3-Indazolinone, 1,2-dimethyl-6-nitro-, hydrazone (7CI, 8CI) (CA INDEX NAME)

RN 28219-03-6 HCAPLUS

CN 6-Indazolinecarbonitrile, 1,2-dimethyl-3-oxo-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-04-7 HCAPLUS

CN 3-Indazolinone, 2-ethyl-1-methyl-6-nitro-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-05-8 HCAPLUS

CN 3-Indazolinone, 1,2-diethyl-6-nitro-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-06-9 HCAPLUS

CN 4(1H)-Pyridone, 2-(dimethylamino)-1-methyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-07-0 HCAPLUS

CN 2(3H)-Benzoxazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-08-1 HCAPLUS

CN 4(1H)-Pyridone, 2-(diethylamino)-1-ethyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-09-2 HCAPLUS

CN 4-Thiazolin-2-one, 3,5-dimethyl-, hydrazone (8CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} \\ & \\ \\ \text{H}_2\text{N} - \text{N} \\ & \\ \text{S} \end{array}$$

RN 28219-10-5 HCAPLUS

CN 2-Indolinone, 1,3,3-trimethyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28219-11-6 HCAPLUS

CN 3-Indazolinone, 1,2-diethyl-, hydrazone (8CI) (CA INDEX NAME)

Et N N Et N-NH2

RN 28219-30-9 HCAPLUS

CN 2-Thiazolidinone, 3-methyl-, hydrazone (8CI) (CA INDEX NAME)

 $\begin{array}{c} \text{Me} \\ \\ \\ \text{H}_2\text{N} - \text{N} \\ \\ \\ \text{S} \end{array}$

RN 28219-31-0 HCAPLUS

Me N Me N-NH2

●x HCl

RN 28219-33-2 HCAPLUS

CN 2(3H)-Thiazolone, 3-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-35-4 HCAPLUS
CN 2(1H)-Pyridinone, 1-methyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-36-5 HCAPLUS

CN 4(1H)-Pyridinone, 1,2,6-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-38-7 HCAPLUS

CN 4(1H)-Pyridinone, 1,2,6-trimethyl-3-nitro-, hydrazone (9CI) (CA INDEX NAME)

RN 28219-39-8 HCAPLUS

CN 4(1H)-Pyridinone, 3-amino-1,2,6-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{Me} & \\ & \\ \text{Me} \\ & \\ \text{N} \\ & \\ \text{N-NH}_2 \\ \end{array}$$

RN 28219-40-1 HCAPLUS

CN 2(3H)-Benzothiazolone, 4,5,6,7-tetrahydro-3-methyl-, hydrazone (9CI)

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

(CA INDEX NAME)

28219-41-2 HCAPLUS

CN 3H-Pyrazol-3-one, 1,2-dihydro-1,2,5-trimethyl-, hydrazone (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Me & \\ | & \\ N & Me \\ \hline & N-NH2 \\ \end{array}$$

28219-42-3 HCAPLUS RN

3-Indazolinone, 5-chloro-1,2-dimethyl-, hydrazone (8CI) (CA INDEX NAME)

RN 28381-00-2 HCAPLUS

3H-Indazol-3-one, 2-ethyl-1,2-dihydro-1-methyl-5-nitro-, hydrazone CN (9CI) (CA INDEX NAME)

IC A61K

62 (Essential Oils and Cosmetics)

ST hair dye hydrazone; dye hair hydrazone; hydrazone hair dye

IT Hair

(dyes for, hydrazones for)

IT Dyes

(hydrazones, hair) 1128-67-2 13545-99-8 20065-04-7 ΙT 20065-05-8 20065-06-9 21337-45-1

```
21817-85-6 27256-92-4 28218-86-2
28218-87-3 28218-89-5 28218-90-8
28218-93-1 28218-95-3 28218-96-4
28218-97-5 28218-98-6 28218-99-7
28219-00-3 28219-01-4 28219-02-5
28219-03-6 28219-04-7 28219-05-8
28219-06-9 28219-07-0 28219-08-1
28219-09-2 28219-10-5 28219-11-6
28219-30-9 28219-31-0 28219-33-2
28219-35-4 28219-36-5 28219-38-7
28219-39-8 28219-40-1 28219-38-7
28219-42-3 28381-00-2
RL: BIOL (Biological study)
(dyes, for hair creams)
```

=>